FAA
HOLDOVER TIME GUIDELINES
REGRESSION INFORMATION

WINTER 2023-2024
ORIGINAL ISSUE: AUGUST 2, 2023

The content of this document is the official FAA winter 2023-2024 holdover time guidelines regression information.

Questions concerning FAA aircraft ground de/anti-icing requirements or Flight Standards policies should be addressed to charles.j.enders@faa.gov or 202-267-4557.

Questions on the technical content of the holdover time tables or regression information should be addressed to warren.underwood@faa.gov or 404-305-7267.

Questions regarding editorial content or web access issues should be addressed to sung.shin@faa.gov or 202-267-8086.

The Holdover Times Tables and related information can be found at the FAA's Aircraft Ground Deicing website. To receive notifications on updates to the Holdover Times Tables and related information, subscribe to the Aircraft Ground Deicing website by clicking on this link.

CHANGE CONTROL RECORDS

This page indicates any changes made to individual pages within the document. Changed pages have the appropriate revision date in the footer. Sidebars are shown to assist in identifying where changes have been made on these pages.

It is the responsibility of the end user to periodically check the following website for updates: https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/deicing/.

REVISION	*DATE*	*DESCRIPTION OF CHANGES*	*AFFECTED PAGES*	*AUTHOR*

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HIGHLIGHTS AND CHANGES FOR WINTER 2023-2024

The principal changes from the previous year are briefly indicated herein.

Type I Fluid

- The Type I regression coefficients are unchanged.

Type II Fluid

- The regression coefficients table and verification table for Newave Aerochemical FCY-2 Bio+ have been removed.
- A change was made to the Type II generic holdover times for winter 2023-2024. The Type II generic verification table has been updated accordingly.

Type III Fluid

- The Type III regression coefficients are unchanged.

Type IV Fluid

- Regression coefficients tables and verification tables have been added for the one new Type IV fluids, added to the holdover time (HOT) guidelines for winter 2023-2024: ALAB International, PROFLIGHT EG4.
- The regression coefficient tables and verification tables for Clariant Produkte Max Flight 04, JSC RCP Nordix Defrost EG 4, and Shaanxi Cleanway Aviation Chemical Cleansurface IV have been removed.
- Several changes were made to the Type IV generic holdover times for winter 2023-2024. The Type IV generic verification table has been updated accordingly.

Guidance

- The guidance section remains unchanged.

GUIDANCE FOR USING REGRESSION INFORMATION

In recent years, several companies have been developing systems that measure precipitation rate in real-time. These systems, referred to as liquid water equivalent systems (LWES), can be used by check-time determination systems (CTDS) and holdover time determination systems (HOTDS) to calculate more precise holdover times than can be obtained from the holdover time guidelines. They do this using the weather data they collect and the regression information underlying the holdover time guidelines.

As a result of the development of LWES, CTDS and HOTDS, the FAA is making the regression coefficients and equations underlying the holdover time tables available to users. The purpose of this document is to provide the holdover time guidelines regression information for the 2023-2024 holdover time guidelines and to provide guidance on its usage.

The sources of the regression data, along with a history of the publication of regression information, are documented in the Transport Canada report, *Regression Coefficients and Equations Used to Develop the Winter 2021-22 Aircraft Ground Deicing Holdover Time Tables*. This document can be referenced for further information if required.

Use of these systems is authorized through the FAA Advisory Circular (AC) 120-112 *Use of Liquid Water Equivalent System (LWES) to Determine Holdover Times or Check Times for Anti-icing Fluids* (latest version). Throughout this document, AC 120-112 is referred as the FAA LWES AC. For further information contact AFS-220 Ground Deicing Focal Charles J. Enders, phone 202-267-4557, email charles.j.enders@faa.gov.

Interpreting Regression Coefficients Tables

Regression information is provided in this document in a series of regression coefficients tables. Each regression coefficients table shows the regression coefficients and equations that are to be used to calculate holdover times at specific outside air temperatures, under specific precipitation types, with specific fluid dilutions (as applicable for Type II/III/IV fluids).

Each regression coefficients table is presented in the format of its corresponding holdover time table. (One exception is the Type II and Type IV regression coefficients tables, which have a single temperature band (below -3 to -14°C) which provides the regression coefficients for both the below -3 to -8°C and below -8 to -14°C temperature bands in the Type II and Type IV holdover time tables.) A footnote is provided at the top of each column to indicate the form of the regression equation for the cells in that column. The regression coefficients required for the equation are given in the corresponding cells below.

The coefficients provided in each table cell are valid only for the conditions (temperature, precipitation type, fluid dilution) of that cell. In cells where no temperature coefficient (coefficient “B”) is provided, temperature is not an input into the equation.

Applicability of Regression Coefficients Tables

The Type I generic regression coefficients tables are applicable for all Type I fluids. Fluid-specific regression coefficients tables are available and applicable for all Type II, Type III, and Type IV fluids. If the specific fluid being used is not known, the methodology for calculating Type II or Type IV generic holdover times must be followed (see next page).

To use the regression information provided in this document to obtain holdover times that are valid for operations in which flaps/slats are deployed prior to de/anti-icing: use the regression information applicable to the fluid and weather condition and multiply the result obtained by 76%.

Calculating Type II and Type IV Generic Holdover Times

Generic Type II and Type IV holdover times are used when a flight crew is unaware of the specific fluid that has been used to de/anti-ice their aircraft. The generic values represent the shortest possible holdover time of either

all Type II or all Type IV fluids available. The following methodologies must be applied to CTDS/HOTDS programming to enable the systems to determine generic Type II and Type IV holdover times.

Type II: To calculate Type II generic holdover times, the CTDS/HOTDS must be programmed to calculate the holdover time for each Type II fluid on the FAA list of fluids tested for anti-icing performance and aerodynamic acceptance and return the shortest holdover time calculated. This is the generic Type II holdover time.

Type IV: To calculate Type IV generic holdover times, the CTDS/HOTDS must be programmed to calculate the holdover time for each Type IV fluid on the FAA list of fluids tested for anti-icing performance and aerodynamic acceptance and return the shortest holdover time calculated. This is the generic Type IV holdover time.

Verification Tables

Verification tables are provided for each of the regression coefficients tables and also for the generic Type II and generic Type IV holdover times. Each verification table provides verification values for select boundary conditions in the associated holdover time table. For Type II, III and IV fluids, the verification tables also include verification values for the lowest usable precipitation rate in snow.

NOTE: CTDS/HOTDS manufacturers may find it useful to use these verification tables as an aid in verifying the implementation of their software algorithms. However, CTDS/HOTDS manufacturers are cautioned that these tables are not all encompassing and that they must develop comprehensive verification and validation methods to ensure the adequacy of their software algorithms.

Lowest and Highest Usable Precipitation Rates in Snow (Table 5 and Table 6)

Snow test data for some fluids is not sufficient to support extrapolation of the regression curves to very low and/or very high rates of precipitation. The lowest usable precipitation rates (LUPRs) and highest usable precipitation rates (HUPRs) in snow have been identified and are included in Table 5 (LUPRs) and Table 6 (HUPRs) for Type II, III and IV fluids (Type I fluids are not affected). The LUPRs and HUPRs differ by fluid brand, fluid dilution and temperature.

NOTE: At this time LUPRs and HUPRs are provided for snow only; LUPRs and HUPRs are not provided for any other precipitation type. The lowest and highest precipitation rates that can be used in other precipitation types are specified in the FAA LWES AC.

Limitations of Regression Information

Users are cautioned that care must be taken in the application of the regression information. There are a number of rules, exceptions and cautions detailed in this document, the holdover time guidelines, and the FAA LWES AC that must be considered.

Several limitations on the usage of the regression information are listed below.

- The regression coefficients can only be used with liquid water equivalent information that is provided by a CTDS or HOTDS in accordance with the FAA LWES AC.
- Regression equations which include a temperature coefficient cannot be populated with temperature data greater than or equal to 2°C. This is a limitation of the form of the equation. The FAA LWES AC instructs that 0°C be input into the equation when temperature is above 0°C.
- Regression data is developed for specific fluid dilutions. The data cannot be interpolated to determine holdover times for use with dilutions other than the standard 100/0, 75/25 and 50/50 mixtures.
- The regression coefficients are based on best-fit power-law curves and the shape of these curves can result in extreme values outside the precipitation rate limits at which endurance time tests are conducted. Therefore, these values are not necessarily accurate. Caution must therefore be exercised when using

the regression equations to calculate holdover times outside of the precipitation rate limits used in the development of holdover time tables, especially at precipitation rates below the lower precipitation rate limit, where the power-law curves give much longer holdover times.

- The lowest precipitation rate to be used as an input to the snow regression equations (this does not apply to other precipitation types) is constrained by the higher of the following:

    1. Minimum demonstrated precipitation measuring equipment rates in accordance with the FAA LWES AC (which shall not be less than 2.0 g/dm²/h); and

    2. Lowest usable precipitation rate (LUPR) for each fluid/dilution/temperature as defined in Table 5 of this document. The LUPR is the lowest precipitation rate for which sufficient snow data exists to support use of the regression coefficients.

- The highest precipitation rate to be used as an input to the snow regression equations (this does not apply to other precipitation types) is constrained by the lower of the following:

    1. The highest precipitation rate for snow stated in the FAA LWES AC (50 g/dm²/h); and

    2. The highest usable precipitation rate (HUPR) for each fluid/dilution/temperature as defined in Table 6 of this document. The HUPR is the highest precipitation rate for which sufficient snow data exists to support use of the regression coefficients.

- All other lowest and highest precipitation rates to be used as inputs to the regression equations are precipitation type dependent and provided in the FAA LWES AC.

- As regression coefficients and equations are not currently used in the determination of frost holdover times, regression coefficient information is not provided for frost.

- As regression coefficients and equations are not used in the determination of the allowance times provided for ice pellets, small hail and ice pellets mixed with other types of precipitation, regression coefficient information is not provided for allowance times.

REGRESSION INFORMATION TABLES FOR WINTER 2023-2024

The regression information for winter 2023-2024 is presented in a series of tables on the following pages. The regression information tables are presented first and are followed by the tables of highest and lowest usable precipitation rates.

The regression information tables are sorted by fluid type (Type I, then Type II, then Type III, then Type IV). Within each fluid type group, the tables are arranged in alphabetical order. The tables are as follows:

- Tables 1-1 to 1-2: Type I Fluid Regression Information Tables
- Tables 2-1 to 2-13: Type II Fluid Regression Information Tables
- Tables 3-1 to 3-3: Type III Fluid Regression Information Tables
- Tables 4-1 to 4-26: Type IV Fluid Regression Information Tables

The tables of highest and lowest usable precipitation rates are presented following the regression information. The tables are as follows:

- Table 5: Lowest Usable Precipitation Rates
- Table 6: Highest Usable Precipitation Rates

TABLE 1-1: GENERIC TYPE I (ALUMINUM WING SURFACES)

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions					
	Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]	Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
-3 °C and above (27 °F and above)	I = 1.3735 A = -0.4751	I = 2.0072 A = -0.5752 B = -0.5585	I = 1.3829 A = -0.3848	I = 1.4688 A = -0.6200	I = 0.9355 A = -0.3384	
below -3 to -6 °C (below 27 to 21 °F)	I = 1.2734 A = -0.5299	I = 2.0072 A = -0.5752 B = -0.5585	I = 1.3842 A = -0.6152	I = 1.4688 A = -0.6200	CAUTION: No holdover time guidelines exist	
below -6 to -10 °C (below 21 to 14 °F)	I = 1.1678 A = -0.5575	I = 2.0072 A = -0.5752 B = -0.5585	I = 1.2545 A = -0.5857	I = 2.2598 A = -1.4012		
below -10 °C (below 14 °F)	I = 1.1473 A = -0.6415	I = 2.0072 A = -0.5752 B = -0.5585				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 Type I aluminum snow values are rounded down to the nearest one minute (e.g. 6.5 mins = 6 mins, 18.6 mins = 18 mins) to determine holdover time table values

Outside Air Temp. (°C)	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
	Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
	5	2	25	10	4	13	5	25	13	75	5
+1 / -3 *	11.0	17.0	6.5	11.0	18.6	9.0	13.0	2.0	5.0	2.0	5.0
-6	8.0	13.0	5.0	8.5	14.3	5.0	9.0	2.0	5.0		
-10	6.0	10.0	4.0	6.7	11.4	4.0	7.0	2.0	5.0		
-25	5.0	9.0	2.5	4.3	7.3						

* Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

TABLE 1-2: GENERIC TYPE I (COMPOSITE WING SURFACES)

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions					
	Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]	Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
-3 °C and above (27 °F and above)	I = 1.3931 A = -0.6279	I = 1.6656 A = -0.7424 B = -0.2094	I = 1.4691 A = -0.5081	I = 1.4688 A = -0.6200	I = 1.1144 A = -0.5943	
below -3 to -6 °C (below 27 to 21 °F)	I = 0.9976 A = -0.3140	I = 1.6656 A = -0.7424 B = -0.2094	I = 1.3842 A = -0.6152	I = 1.4688 A = -0.6200	CAUTION: No holdover time guidelines exist	
below -6 to -10 °C (below 21 to 14 °F)	I = 1.1308 A = -0.7565	I = 1.6656 A = -0.7424 B = -0.2094	I = 1.2545 A = -0.5857	I = 2.2598 A = -1.4012		
below -10 °C (below 14 °F)	I = 1.0289 A = -0.6107	I = 2.0072 A = -0.5752 B = -0.5585				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 Type I composite snow values below 10 mins are rounded down to the nearest one minute (e.g. 2.5 mins = 2 mins) to determine holdover time table values

Outside Air Temp. (°C)	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
	Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
	5	2	25	10	4	13	5	25	13	75	5
+1 / -3 *	9.0	16.0	3.0	6.0	11.8	8.0	13.0	2.0	5.0	1.0	5.0
-6	6.0	8.0	2.7	5.4	10.7	5.0	9.0	2.0	5.0		
-10	4.0	8.0	2.5	5.0	9.8	4.0	7.0	2.0	5.0		
-25	4.0	7.0	2.5	4.3	7.3						

* Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

TABLE 2-1: ABAX ECOWING AD-2

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5300 A = -0.8946	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.6240 A = -0.8987	I = 2.5285 A = -0.7682	I = 2.4977 A = -0.8034	
	75/25	I = 1.9838 A = -0.1716	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.2055 A = -0.5820	I = 2.2411 A = -0.6851	I = 2.3107 A = -0.8650	
	50/50	I = 1.6478 A = -0.5976	I = 2.0999 A = -0.7867 B = -0.1524	I = 2.0999 A = -0.7867 B = -0.1524	I = 2.0999 A = -0.7867 B = -0.1524	I = 1.6770 A = -0.6366	I = 1.5734 A = -0.5302	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5699 A = -1.2862	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.7889 A = -0.7155 B = -0.2871	I = 2.6096 A = -1.0768	I = 2.3302 A = -0.7561		
	75/25	I = 2.4425 A = -1.2784	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.5435 A = -0.7664 B = -0.0812	I = 2.7079 A = -1.3713	I = 2.3728 A = -0.7324		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8390 A = -0.8725	I = 2.1496 A = -1.4094 B = 0.0000	I = 1.9908 A = -1.1457 B = 0.0000	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8390 A = -0.8725	I = 2.0233 A = -1.7757 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -27 °C (below -13 to -17 °F)	100/0	I = 1.8390 A = -0.8725	I = 1.4031 A = -1.1696 B = 0.0000	I = 1.7565 A = -1.7565 B = 0.0000	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	80.3	182.3	38.7	74.6	176.5	42.0	99.0	28.5	47.1	9.8	86.3
	75/25	73.1	85.5	26.0	52.5	132.2	36.1	62.9	19.2	30.1	4.9	50.8
	50/50	17.0	29.4	7.8	16.1	41.5	9.3	17.1	6.8	9.6		
-8	100/0	46.9	152.3	31.7	61.1	144.7	25.7	71.9	18.8	30.8		
	75/25	35.4	114.2	24.6	49.6	124.9	15.1	56.2	22.3	36.1		
-10 / -14 ***	100/0	46.9	152.3	27.7	53.4	126.4	25.7	71.9	18.8	30.8		
	75/25	35.4	114.2	23.7	47.8	120.2	15.1	56.2	22.3	36.1		
-18	100/0	16.9	37.7	2.0	7.0	30.0						
-25	100/0	16.9	37.7	1.0	3.0	15.0						
-27	100/0	16.9	37.7	0.0	1.0	7.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-2: AVIATION XI'AN HIGH-TECH CLEANWING II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.2573 A = -0.7407	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.1979 A = -0.5728	I = 2.2567 A = -0.6317	I = 2.1512 A = -0.6064	
	75/25	I = 2.0742 A = -0.5411	I = 2.3044 A = -0.6229 B = -0.0204	I = 2.3044 A = -0.6229 B = -0.0204	I = 2.3044 A = -0.6229 B = -0.0204	I = 2.1475 A = -0.5338	I = 2.2158 A = -0.6683	I = 2.1568 A = -0.6861	
	50/50	I = 1.9836 A = -0.6276	I = 2.5060 A = -0.7213 B = -0.5237	I = 2.5060 A = -0.7213 B = -0.5237	I = 2.5060 A = -0.7213 B = -0.5237	I = 2.0341 A = -0.6288	I = 2.1847 A = -0.7830	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.3283 A = -0.9431	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.6057 A = -0.6656 B = -0.3133	I = 2.1441 A = -0.6033	I = 1.8282 A = -0.4021		
	75/25	I = 2.3328 A = -1.0611	I = 2.3044 A = -0.6229 B = -0.0204	I = 2.3044 A = -0.6229 B = -0.0204	I = 2.3044 A = -0.6229 B = -0.0204	I = 1.6685 A = -0.1061	I = 1.7474 A = -0.3274		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9950 A = -0.9540	I = 4.0861 A = -0.7279 B = -1.5166	I = 4.0861 A = -0.7279 B = -1.5166	I = 4.0861 A = -0.7279 B = -1.5166				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9950 A = -0.9540	I = 4.0861 A = -0.7279 B = -1.5166	I = 4.0861 A = -0.7279 B = -1.5166	I = 4.0861 A = -0.7279 B = -1.5166				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	54.9	108.2	28.6	52.6	117.3	36.3	62.7	23.6	35.7	10.3	53.4
	75/25	49.7	81.5	26.3	46.5	98.4	35.7	59.5	19.1	29.6	7.4	47.6
	50/50	35.1	62.3	13.5	26.2	62.5	21.6	39.3	12.3	20.5		
-8	100/0	46.7	110.8	23.0	42.3	94.4	29.7	52.8	18.5	24.0		
	75/25	39.0	103.1	25.9	45.8	97.0	35.5	39.3	19.5	24.1		
-10 / -14 ***	100/0	46.7	110.8	19.9	36.5	81.4	29.7	52.8	18.5	24.0		
	75/25	39.0	103.1	25.6	45.4	96.1	35.5	39.3	19.5	24.1		
-18	100/0	21.3	51.0	12.5	24.3	58.3						
-25	100/0	21.3	51.0	7.9	15.4	37.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-3: CLARIANT SAFEWING MP II FLIGHT

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4369 A = -0.1630	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.6541 A = -0.6697	I = 2.9080 A = -0.8860	I = 2.4810 A = -0.7583	
	75/25	I = 2.3415 A = -0.4326	I = 3.0163 A = -0.7162 B = -0.5615	I = 3.0163 A = -0.7162 B = -0.5615	I = 3.0163 A = -0.7162 B = -0.5615	I = 2.1306 A = -0.2689	I = 2.5596 A = -0.7512	I = 2.5884 A = -0.9638 or[4] I = 2.2277 A = -0.7375	
	50/50	I = 2.2250 A = -0.6732	I = 2.2879 A = -0.7080 B = -0.2971	I = 2.2879 A = -0.7080 B = -0.2971	I = 2.2879 A = -0.7080 B = -0.2971	I = 1.7413 A = -0.3693	I = 1.9070 A = -0.6463		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.2233 A = -0.6827	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.7425 A = -0.5435 B = -0.3120	I = 2.6220 A = -0.9557	I = 2.5701 A = -0.8095		
	75/25	I = 2.1182 A = -1.0244	I = 3.0163 A = -0.7162 B = -0.5615	I = 3.0163 A = -0.7162 B = -0.5615	I = 3.0163 A = -0.7162 B = -0.5615	I = 2.6085 A = -1.0800 or[4] I = 2.7141 A = -1.2023	I = 2.3076 A = -0.6932		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8996 A = -0.6356	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8996 A = -0.6356	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.8996 A = -0.6356	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476	I = 6.2483 A = -1.1556 B = -2.8476				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6
4 Calculate value using both sets of coefficients; take shortest holdover time calculated

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*											
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	210.4	244.2	58.2	95.7	184.1	80.9	153.5	46.7	83.4	11.5	89.3
	75/25	109.4	162.7	41.9	80.8	191.5	67.8	87.6	32.3	52.8	6.0	51.5
	50/50	56.8	105.3	12.3	23.6	55.3	21.4	30.4	10.1	15.4		
-8	100/0	55.7	104.2	46.9	77.1	148.3	36.1	89.9	27.4	46.6		
	75/25	25.2	64.5	28.4	54.8	129.7	23.7	71.4	21.8	34.3		
-10 / -14 ***	100/0	55.7	104.2	40.5	66.6	128.1	36.1	89.9	27.4	46.6		
	75/25	25.2	64.5	21.8	42.1	99.6	23.7	71.4	21.8	34.3		
-18	100/0	28.5	51.1	8.5	24.4	98.2						
-25	100/0	28.5	51.1	3.6	10.4	41.8						
-29	100/0	28.5	51.1	2.4	7.0	28.2						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-4: CLARIANT SAFEWING MP II FLIGHT PLUS

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions					
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]	Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.5234 A = -0.4612	I = 3.1605 A = -0.8880 B = -0.3275	I = 2.4469 A = -0.4650	I = 2.2484 A = -0.4093	I = 2.6707 A = -0.8193	
	75/25	I = 2.5521 A = -0.5255	I = 2.6834 A = -0.6171 B = -0.0598	I = 2.3720 A = -0.3524	I = 2.6120 A = -0.6593	I = 2.3026 A = -0.5932	
	50/50	I = 2.4106 A = -0.8778	I = 2.6120 A = -0.6769 B = -0.7145	I = 2.3447 A = -0.7750	I = 1.8799 A = -0.5318		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5312 A = -1.2991	I = 3.1605 A = -0.8880 B = -0.3275	I = 2.6242 A = -0.9778	I = 2.5660 A = -0.7490		
	75/25	I = 2.4057 A = -1.2869	I = 2.6834 A = -0.6171 B = -0.0598	I = 2.5280 A = -0.9864	I = 2.1271 A = -0.4438		CAUTION: No holdover time guidelines exist
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8877 A = -0.8771	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8877 A = -0.8771	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.8877 A = -0.8771	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	158.9	242.4	49.0	110.6	249.4	84.9	132.4	47.4	62.0	13.6	125.3
	75/25	153.0	247.7	60.1	105.8	222.4	95.4	133.6	49.0	75.4	15.5	77.3
	50/50	62.7	140.1	14.7	27.3	50.7	30.3	63.5	13.7	19.4		
-8	100/0	42.0	138.1	39.1	88.1	198.8	34.3	87.2	33.0	53.9		
	75/25	32.1	104.3	57.7	101.5	213.4	26.9	69.0	32.1	42.9		
-10 / -14 ***	100/0	42.0	138.1	33.5	75.5	170.4	34.3	87.2	33.0	53.9		
	75/25	32.1	104.3	56.1	98.7	207.5	26.9	69.0	32.1	42.9		
-18	100/0	18.8	42.0	2.0	7.0	7.0						
-25	100/0	18.8	42.0	1.0	3.0	3.0						
-29	100/0	18.8	42.0	0.0	1.0	1.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-5: CRYOTECH POLAR GUARD® II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5794 A = -0.5025	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.2682 A = -0.2524	I = 2.2584 A = -0.2806	I = 2.6661 A = -0.7999	
	75/25	I = 2.5776 A = -0.5705	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.2204 A = -0.1898	I = 2.8328 A = -0.8896	I = 2.6248 A = -0.8807	
	50/50	I = 2.1254 A = -0.6271	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.2943 A = -0.9086	I = 2.3695 A = -0.9996	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5101 A = -1.1145	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.7077 A = -1.0390	I = 2.0801 A = -0.3886		
	75/25	I = 2.2594 A = -0.9785	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.4495 A = -0.9076	I = 2.0483 A = -0.3597		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9253 A = -0.6979	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9253 A = -0.6979	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134				
below -25 to -30.5 °C (below -13 to -23 °F)	100/0	I = 1.9253 A = -0.6979	I = 2.0544 A = -1.1592 B = 0.0000	I = 2.0544 A = -1.1592 B = 0.0000	I = 2.0544 A = -1.1592 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	169.1	268.0	65.6	113.6	233.5	97.1	123.5	73.5	88.3	14.7	127.9
	75/25	151.0	254.6	40.1	84.9	227.7	102.1	122.4	38.8	69.5	9.4	102.1
	50/50	48.6	86.4	10.0	26.4	94.9	19.2	45.6	9.4	18.0		
-8	100/0	53.8	149.5	48.4	83.8	172.4	35.5	95.8	34.4	44.4		
	75/25	37.6	92.2	31.5	66.8	179.1	27.4	65.3	35.1	44.4		
-10 / -14 ***	100/0	53.8	149.5	39.4	68.2	140.3	35.5	95.8	34.4	44.4		
	75/25	37.6	92.2	26.8	56.8	152.2	27.4	65.3	35.1	44.4		
-18	100/0	27.4	51.9	11.5	33.2	134.2						
-25	100/0	27.4	51.9	4.8	13.8	56.0						
-30.5	100/0	27.4	51.9	2.7	7.9	31.7						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-6: JSC RCP NORDIX DEFROST PG 2

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.2918 A = -0.8145	I = 2.7346 A = -0.7309 B = -0.3571	I = 2.7346 A = -0.7309 B = -0.3571	I = 2.7346 A = -0.7309 B = -0.3571	I = 2.2402 A = -0.6580	I = 2.3748 A = -0.7498	I = 2.4186 A = -0.7567	
	75/25	I = 2.2699 A = -0.6569	I = 2.9389 A = -0.8579 B = -0.5828	I = 2.9389 A = -0.8579 B = -0.5828	I = 2.9389 A = -0.8579 B = -0.5828	I = 2.0887 A = -0.5872	I = 2.4497 A = -0.9006	I = 1.9718 A = -0.6216	
	50/50	I = 2.2311 A = -0.6560	I = 2.7673 A = -0.7928 B = -0.2600	I = 2.7673 A = -0.7928 B = -0.2600	I = 2.7673 A = -0.7928 B = -0.2600	I = 2.1018 A = -0.5878	I = 2.3509 A = -0.8146	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.0963 A = -0.5196	I = 2.7346 A = -0.7309 B = -0.3571	I = 2.7346 A = -0.7309 B = -0.3571	I = 2.7346 A = -0.7309 B = -0.3571	I = 1.9595 A = -0.3909	I = 2.1235 A = -0.5815		
	75/25	I = 2.1158 A = -0.7229	I = 2.9389 A = -0.8579 B = -0.5828	I = 2.9389 A = -0.8579 B = -0.5828	I = 2.9389 A = -0.8579 B = -0.5828	I = 1.9013 A = -0.4425	I = 1.8645 A = -0.4846		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.0196 A = -0.6831	I = 2.1496 A = -1.4094 B = 0.0000	I = 1.9908 A = -1.1457 B = 0.0000	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.0196 A = -0.6831	I = 2.0233 A = -1.7757 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -27 °C (below -13 to -17 °F)	100/0	I = 2.0196 A = -0.6831	I = 1.4031 A = -1.1696 B = 0.0000	I = 1.7565 A = -1.7565 B = 0.0000	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	52.8	111.3	29.1	56.8	136.9	32.2	60.3	21.2	34.6	10.0	77.6
	75/25	64.7	118.1	21.5	47.2	132.5	27.2	47.7	15.5	28.0	6.4	34.5
	50/50	59.2	108.0	30.0	62.1	161.2	28.0	49.1	16.3	27.8		
-8	100/0	54.1	87.1	22.7	44.3	106.8	33.4	48.6	20.4	29.9		
	75/25	40.8	79.1	14.3	31.5	88.5	25.6	39.1	15.4	21.1		
-10 / -14 ***	100/0	54.1	87.1	19.2	37.5	90.3	33.4	48.6	20.4	29.9		
	75/25	40.8	79.1	10.9	23.9	67.3	25.6	39.1	15.4	21.1		
-18	100/0	34.8	65.2	2.0	7.0	30.0						
-25	100/0	34.8	65.2	1.0	3.0	15.0						
-27	100/0	34.8	65.2	0.0	1.0	7.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-7: KILFROST ABC-K PLUS

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions					
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]	Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.5148 A = -0.5532	I = 2.6804 A = -0.5771 B = -0.1414	I = 2.2527 A = -0.1978	I = 2.5473 A = -0.5588	I = 2.6523 A = -0.7393	
	75/25	I = 2.3020 A = -0.4342	I = 2.5273 A = -0.6849 B = -0.0149	I = 2.3200 A = -0.3522	I = 2.4709 A = -0.5601	I = 2.5956 A = -0.7470	
	50/50	I = 1.9950 A = -0.6463	I = 2.3972 A = -0.8261 B = -0.5288	I = 1.7256 A = -0.3910	I = 2.0364 A = -0.7354		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.0780 A = -0.8928	I = 2.6804 A = -0.5771 B = -0.1414	I = 2.4865 A = -0.9979	I = 3.2510 A = -1.5260		
	75/25	I = 2.3405 A = -1.3357	I = 2.5273 A = -0.6849 B = -0.0149	I = 2.4921 A = -1.0863	I = 3.6906 A = -1.9574		CAUTION: No holdover time guidelines exist
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9498 A = -0.6590	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9498 A = -0.6590	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.9498 A = -0.6590	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	134.3	223.0	59.5	101.0	202.4	107.7	130.1	58.4	84.1	18.5	136.6
	75/25	99.7	148.4	36.3	67.9	127.2	84.7	118.5	48.7	70.3	15.7	118.4
	50/50	34.9	63.2	7.5	15.9	43.0	19.5	28.3	10.2	16.5		
-8	100/0	28.4	64.5	54.0	91.6	183.5	23.7	61.5	13.1	35.6		
	75/25	25.5	86.8	35.9	67.2	125.9	19.1	54.1	9.0	32.4		
-10 / -14 ***	100/0	28.4	64.5	50.5	85.7	171.7	23.7	61.5	13.1	35.6		
	75/25	25.5	86.8	35.6	66.8	125.0	19.1	54.1	9.0	32.4		
-18	100/0	30.8	56.4	2.0	7.0	7.0						
-25	100/0	30.8	56.4	1.0	3.0	3.0						
-29	100/0	30.8	56.4	0.0	1.0	1.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-8: KILFROST ICE CLEAR II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.3507 A = -0.6180	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.3449 A = -0.5100	I = 2.6586 A = -0.7656	I = 2.6138 A = -0.7538	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4722 A = -0.9547	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.6644 A = -0.6692 B = -0.1515	I = 2.5827 A = -1.0030	I = 2.3138 A = -0.5303		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7916 A = -0.3979	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7916 A = -0.3979	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987				
below -25 to -28 °C (below -13 to -18 °F)	100/0	I = 1.7916 A = -0.3979	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987	I = 4.8747 A = -0.6830 B = -2.0987				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	82.9	146.1	42.0	77.5	173.5	59.8	97.4	38.8	63.9	15.9	122.2
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	63.8	153.0	37.8	69.8	156.2	29.2	76.1	37.4	52.9		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	63.8	153.0	35.2	65.0	145.4	29.2	76.1	37.4	52.9		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	32.6	47.0	15.5	28.9	65.8						
-25	100/0	32.6	47.0	8.2	15.4	35.1						
-28	100/0	32.6	47.0	6.6	12.3	28.1						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-9: MKS DEVO COREICEPHOB TYPE II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.3217 A = -0.3631	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.4040 A = -0.4677	I = 2.5645 A = -0.6443	I = 2.4656 A = -0.7099	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	I = 2.1717 A = -0.5171	I = 2.4249 A = -0.6155 B = -0.0410	I = 2.4249 A = -0.6155 B = -0.0410	I = 2.4249 A = -0.6155 B = -0.0410	I = 2.2073 A = -0.4575	I = 2.3968 A = -0.6952	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.3168 A = -0.8411	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.9268 A = -0.6775 B = -0.4716	I = 2.4949 A = -0.9099	I = 2.3371 A = -0.7041		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.6667 A = -0.5734	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.6667 A = -0.5734	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300				
below -25 to -27 °C (below -13 to -17 °F)	100/0	I = 1.6667 A = -0.5734	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300	I = 6.1052 A = -0.6203 B = -3.2300				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	116.9	163.1	44.7	83.1	187.9	76.4	119.4	46.1	70.3	13.6	93.2
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	64.6	103.8	34.3	60.4	126.6	49.9	77.2	26.6	41.9		
-8	100/0	53.6	115.8	32.2	59.9	135.5	30.3	72.3	22.5	35.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	53.6	115.8	25.8	48.0	108.6	30.3	72.3	22.5	35.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	18.4	31.2	10.9	19.2	40.4						
-25	100/0	18.4	31.2	4.1	7.3	15.3						
-27	100/0	18.4	31.2	3.3	5.8	12.2						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-10: NEWAVE AEROCHEMICAL FCY-2

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions					
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]	Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.3831 A = -0.7394	I = 2.7862 A = -0.6652 B = -0.5351	I = 2.3424 A = -0.7349	I = 2.1756 A = -0.5685	I = 2.0886 A = -0.6241	
	75/25	I = 2.1617 A = -0.6765	I = 2.6255 A = -0.6413 B = -0.5531	I = 2.1241 A = -0.6856	I = 2.6154 A = -1.0787	I = 1.8312 A = -0.6039	
	50/50	I = 1.6808 A = -0.3883	I = 2.1561 A = -0.7445 B = 0.0000	I = 1.7656 A = -0.6698	I = 1.6020 A = -0.5128		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.1844 A = -0.7552	I = 2.7862 A = -0.6652 B = -0.5351	I = 2.2637 A = -0.8968	I = 1.6935 A = -0.3738		
	75/25	I = 2.0300 A = -0.7545	I = 2.6255 A = -0.6413 B = -0.5531	I = 2.0031 A = -0.7745	I = 2.0994 A = -0.8524		CAUTION: No holdover time guidelines exist
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7388 A = -0.5485	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7388 A = -0.5485	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -28 °C (below -13 to -18 °F)	100/0	I = 1.7388 A = -0.5485	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	73.5	144.7	30.4	55.8	124.4	33.4	67.4	24.0	34.9	8.3	44.9
	75/25	48.8	90.8	22.0	39.6	85.7	22.9	44.1	12.8	25.9	5.0	25.7
	50/50	25.7	36.6	13.0	25.8	63.2	10.5	19.8	7.7	10.7		
-8	100/0	45.3	90.6	21.0	38.5	85.8	18.4	43.3	14.8	18.9		
	75/25	31.8	63.5	15.0	27.0	58.4	13.8	29.0	8.1	14.1		
-10 / -14 ***	100/0	45.3	90.6	16.3	30.0	66.8	18.4	43.3	14.8	18.9		
	75/25	31.8	63.5	11.6	20.8	45.0	13.8	29.0	8.1	14.1		
-18	100/0	22.7	37.5	2.0	7.0	7.0						
-25	100/0	22.7	37.5	1.0	3.0	3.0						
-28	100/0	22.7	37.5	0.0	1.0	1.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-11: ROMCHIM ADD-PROTECT NG TYPE II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.3974 A = -0.7794	I = 3.0299 A = -0.8381 B = -0.4851	I = 3.0299 A = -0.8381 B = -0.4851	I = 3.0299 A = -0.8381 B = -0.4851	I = 2.3113 A = -0.5668	I = 2.2728 A = -0.5113	I = 2.4042 A = -0.8164	
	75/25	I = 2.2548 A = -0.6819	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.3252 A = -0.6462	I = 2.3988 A = -0.7047	I = 2.2378 A = -0.7242	
	50/50	I = 2.0350 A = -0.9539	I = 2.3515 A = -0.7025 B = -0.2827	I = 2.3515 A = -0.7025 B = -0.2827	I = 2.3515 A = -0.7025 B = -0.2827	I = 1.9619 A = -0.6157	I = 2.0649 A = -0.7375	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.1684 A = -0.6263	I = 3.0299 A = -0.8381 B = -0.4851	I = 3.0299 A = -0.8381 B = -0.4851	I = 3.0299 A = -0.8381 B = -0.4851	I = 2.3829 A = -0.7538	I = 2.1520 A = -0.5404		
	75/25	I = 2.1020 A = -0.5437	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.8970 A = -0.8514 B = -0.4622	I = 2.4793 A = -0.9714	I = 2.3197 A = -0.7496		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.4934 A = -0.5224	I = 2.1496 A = -1.4094 B = 0.0000	I = 1.9908 A = -1.1457 B = 0.0000	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.4934 A = -0.5224	I = 2.0233 A = -1.7757 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -28 °C (below -13 to -18 °F)	100/0	I = 1.4934 A = -0.5224	I = 1.4031 A = -1.1696 B = 0.0000	I = 1.7565 A = -1.7565 B = 0.0000	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	71.2	145.5	33.1	71.2	195.4	47.9	82.2	36.1	50.5	7.5	68.2
	75/25	60.0	112.1	24.2	52.8	147.1	40.3	74.7	25.9	41.1	7.6	53.9
	50/50	23.3	56.0	14.9	28.3	65.9	18.9	34.0	10.8	17.5		
-8	100/0	53.8	95.5	23.6	50.9	139.6	34.9	71.8	24.9	35.5		
	75/25	52.7	86.8	17.6	38.3	106.8	25.0	63.1	18.7	30.5		
-10 / -14 ***	100/0	53.8	95.5	18.8	40.5	111.1	34.9	71.8	24.9	35.5		
	75/25	52.7	86.8	14.1	30.8	85.9	25.0	63.1	18.7	30.5		
-18	100/0	13.4	21.7	2.0	7.0	30.0						
-25	100/0	13.4	21.7	1.0	3.0	15.0						
-28	100/0	13.4	21.7	0.0	1.0	7.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-12: ROMCHIM ADD-PROTECT TYPE II

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5740 A = -0.8251	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.6191 A = -0.9213	I = 2.4792 A = -0.7630	I = 2.1185 A = -0.6149	
	75/25	I = 2.0354 A = -0.6203	I = 2.5210 A = -0.6815 B = -0.4862	I = 2.5210 A = -0.6815 B = -0.4862	I = 2.5210 A = -0.6815 B = -0.4862	I = 2.0120 A = -0.5901	I = 2.1011 A = -0.6689	I = 1.7686 A = -0.5325	
	50/50	I = 1.7404 A = -0.6221	I = 1.9864 A = -0.5840 B = -0.2529	I = 1.9864 A = -0.5840 B = -0.2529	I = 1.9864 A = -0.5840 B = -0.2529	I = 2.0897 A = -0.9018	I = 1.7429 A = -0.6010	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 1.8401 A = -0.5735	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.8637 A = -0.7431 B = -0.5033	I = 2.2574 A = -0.7754	I = 2.0901 A = -0.5723		
	75/25	I = 1.9219 A = -0.6509	I = 2.5210 A = -0.6815 B = -0.4862	I = 2.5210 A = -0.6815 B = -0.4862	I = 2.5210 A = -0.6815 B = -0.4862	I = 1.8894 A = -0.5596	I = 1.8836 A = -0.5597		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.5810 A = -0.5714	I = 2.1496 A = -1.4094 B = 0.0000	I = 1.9908 A = -1.1457 B = 0.0000	I = 2.2123 A = -1.3672 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.5810 A = -0.5714	I = 2.0233 A = -1.7757 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -28 °C (below -13 to -18 °F)	100/0	I = 1.5810 A = -0.5714	I = 1.4031 A = -1.1696 B = 0.0000	I = 1.7565 A = -1.7565 B = 0.0000	I = 5.0259 A = -5.0259 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	99.4	211.7	29.7	58.7	143.7	39.2	94.4	25.9	42.6	9.2	48.8
	75/25	40.0	70.6	16.9	31.6	71.8	22.6	39.8	14.7	22.7	5.9	24.9
	50/50	20.2	35.7	9.8	16.8	34.0	12.2	28.8	8.0	11.8		
-8	100/0	27.5	46.5	21.0	41.4	101.4	24.8	51.9	19.5	28.4		
	75/25	29.3	53.2	12.1	22.6	51.2	18.5	31.5	12.6	18.2		
-10 / -14 ***	100/0	27.5	46.5	16.6	32.7	80.0	24.8	51.9	19.5	28.4		
	75/25	29.3	53.2	9.6	17.9	40.8	18.5	31.5	12.6	18.2		
-18	100/0	15.2	25.6	2.0	7.0	30.0						
-25	100/0	15.2	25.6	1.0	3.0	15.0						
-28	100/0	15.2	25.6	0.0	1.0	7.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 2-13: TYPE II GENERIC

VERIFICATION TABLE

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*									
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)		Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	**2**	**25**	**10**	**13**	**5**	**25**	**13**	**75**	**5**
+1 / -3 *	100/0	52.8	108.2	28.6	52.6	32.2	60.3	21.2	34.6	7.5	44.9
	75/25	40.0	70.6	16.9	31.6	22.6	39.8	12.8	22.7	4.9	24.9
	50/50	17.0	29.4	7.5	15.9	9.3	17.1	6.8	9.6		
-8	100/0	27.5	46.5	21.0	38.5	18.4	43.3	13.1	18.9		
	75/25	25.2	53.2	12.1	22.6	13.8	29.0	8.1	14.1		
-10 / -14 **	100/0	27.5	46.5	16.3	30.0	18.4	43.3	13.1	18.9		
	75/25	25.2	53.2	9.6	17.9	13.8	29.0	8.1	14.1		
-18	100/0	13.4	21.7	2.0	7.0						
-25	100/0	13.4	21.7	1.0	3.0						

* Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 3-1: ALLCLEAR AEROCLEAR MAX, APPLIED UNHEATED ON LOW SPEED AIRCRAFT

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions[1]					
		Freezing Fog, Freezing Mist, or Ice Crystals[2]	Snow, Snow Grains or Snow Pellets[3,4]	Freezing Drizzle[2]	Light Freezing Rain[2]	Rain on Cold Soaked Wing[2]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.3532 A = -0.9867	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.2733 A = -0.8172	I = 2.4359 A = -0.9105	I = 2.1350 A = -0.7258	
	75/25	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a		
below -3 to -10°C (below 27 to 14 °F)	100/0	I = 2.2318 A = -0.7815	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.1031 A = -0.6645	I = 2.2245 A = -0.7407	CAUTION: No holdover time guidelines exist	
	75/25	n/a	n/a	n/a	n/a		
below -10 to -16 °C (below 14 to 3 °F)	100/0	I = 2.3342 A = -1.0165	I = 2.4111 A = -0.8236 B = 0.0000				

1 CAUTION: Fluid must be applied unheated on aircraft conforming to the SAE AS5900 low speed aerodynamic test criterion to use these regression coefficients
2 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
3 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
4 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	46.1	113.8	18.2	38.7	104.3	23.1	50.4	14.6	26.4	5.9	42.4
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10	100/0	48.5	99.2	18.2	38.7	104.3	23.1	43.5	15.5	25.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-25	100/0	42.0	106.7	18.2	38.7	104.3						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

TABLE 3-2: ALLCLEAR AEROCLEAR MAX, APPLIED UNHEATED ON MIDDLE SPEED AIRCRAFT

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions[1]					
		Freezing Fog, Freezing Mist, or Ice Crystals[2]	Snow, Snow Grains or Snow Pellets[3,4]	Freezing Drizzle[2]	Light Freezing Rain[2]	Rain on Cold Soaked Wing[2]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.3532 A = -0.9867	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.2733 A = -0.8172	I = 2.4359 A = -0.9105	I = 2.1350 A = -0.7258	
	75/25	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a		
below -3 to -10°C (below 27 to 14 °F)	100/0	I = 2.2318 A = -0.7815	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.1031 A = -0.6645	I = 2.2245 A = -0.7407		CAUTION: No holdover time guidelines exist
	75/25	n/a	n/a	n/a	n/a		
below -10 to -20.5 °C (below 14 to -5 °F)	100/0	I = 2.3342 A = -1.0165	I = 2.4111 A = -0.8236 B = 0.0000				

1 CAUTION: Fluid must be applied unheated on aircraft conforming to the SAE AS5900 low speed aerodynamic test criterion to use these regression coefficients
2 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
3 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
4 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*											
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	46.1	113.8	18.2	38.7	104.3	23.1	50.4	14.6	26.4	5.9	42.4
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10	100/0	48.5	99.2	18.2	38.7	104.3	23.1	43.5	15.5	25.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-25	100/0	42.0	106.7	18.2	38.7	104.3						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

TABLE 3-3: ALLCLEAR AEROCLEAR MAX, APPLIED UNHEATED ON HIGH SPEED AIRCRAFT

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions[1]					
		Freezing Fog, Freezing Mist, or Ice Crystals[2]	Snow, Snow Grains or Snow Pellets[3,4]	Freezing Drizzle[2]	Light Freezing Rain[2]	Rain on Cold Soaked Wing[2]	Other
-3 °C and above (27 °F and above)	100/0	I = 2.3532 A = -0.9867	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.2733 A = -0.8172	I = 2.4359 A = -0.9105	I = 2.1350 A = -0.7258	
	75/25	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a		
below -3 to -10°C (below 27 to 14 °F)	100/0	I = 2.2318 A = -0.7815	I = 2.4111 A = -0.8236 B = 0.0000	I = 2.1031 A = -0.6645	I = 2.2245 A = -0.7407		CAUTION: No holdover time guidelines exist
	75/25	n/a	n/a	n/a	n/a		
below -10 to -25 °C (below 14 to -13 °F)	100/0	I = 2.3342 A = -1.0165	I = 2.4111 A = -0.8236 B = 0.0000				
below -25 to -35 °C (below -13 to -31 °F)	100/0	I = 2.1252 A = -1.0990	I = 2.1551 A = -0.8234 B = 0.0000				

1 CAUTION: Fluid must be applied unheated on aircraft conforming to the SAE AS5900 high speed aerodynamic test criterion to use these regression coefficients
2 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
3 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
4 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*												
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)					Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	4	3	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	46.1	113.8	18.2	38.7	82.3	104.3	104.3	23.1	50.4	14.6	26.4	5.9	42.4
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10	100/0	48.5	99.2	18.2	38.7	82.3	104.3	104.3	23.1	43.5	15.5	25.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-25	100/0	42.0	106.7	18.2	38.7	82.3	104.3	104.3						
-35	100/0	22.8	62.3	10.1	21.5	45.6	57.8	57.8						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

TABLE 4-1: ABAX ECOWING AD-49

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4713 A = -0.2370	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 2.3729 A = -0.3927	I = 2.4943 A = -0.5000	I = 2.6531 A = -0.8558	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5177 A = -1.7715	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 2.8172 A = -1.2681	I = 1.9828 A = -0.5016		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7838 A = -0.5976	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7838 A = -0.5976	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -26 °C (below -13 to -15 °F)	100/0	I = 1.7838 A = -0.5976	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	202.1	251.2	58.8	113.3	267.9	86.2	125.4	62.4	86.6	11.2	113.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	19.0	96.5	46.6	89.6	211.9	25.4	85.3	19.1	26.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	19.0	96.5	39.7	76.5	180.8	25.4	85.3	19.1	26.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	23.2	40.2	2.0	9.0	45.0						
-25	100/0	23.2	40.2	1.0	3.0	20.0						
-26	100/0	23.2	40.2	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-2: ALAB INTERNATIONAL PROFLIGHT EG4

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5877 A = -0.6853	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.4963 A = -0.6246	I = 2.3516 A = -0.5633	I = 2.7073 A = -0.8545	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5765 A = -0.6884	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.5931 A = -0.6981 B = 0.1589	I = 2.7340 A = -0.8584	I = 2.2087 A = -0.3708		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.3194 A = -1.2392	I = 2.2480 A = -0.9120 B = 0.0000	I = 2.1544 A = -0.7565 B = 0.0000	I = 2.3979 A = -1.0000 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.3194 A = -1.2392	I = 2.2685 A = -1.1070 B = 0.0000	I = 2.2465 A = -1.0704 B = 0.0000	I = 2.3751 A = -1.1990 B = 0.0000				
below -25 to -26 °C (below -13 to -15 °F)	100/0	I = 2.3194 A = -1.2392	I = 2.1021 A = -1.1696 B = 0.0000	I = 2.1466 A = -1.2435 B = 0.0000	I = 2.4160 A = -1.5129 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	128.4	240.7	53.5	101.4	235.0	63.2	114.7	36.7	53.0	12.7	128.8
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	124.5	234.0	59.7	113.2	262.4	60.0	136.1	49.0	62.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	124.5	234.0	64.3	122.0	282.7	60.0	136.1	49.0	62.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	28.4	88.4	10.0	25.0	65.0						
-25	100/0	28.4	88.4	5.0	15.0	55.0						
-26	100/0	28.4	88.4	2.0	8.0	35.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-3: ALLCLEAR CLEARWING ECO

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.6504 A = -0.8265	I = 3.1180 A = -0.7762 B = -0.4483	I = 3.1180 A = -0.7762 B = -0.4483	I = 3.1180 A = -0.7762 B = -0.4483	I = 2.3553 A = -0.2823	I = 2.4131 A = -0.3736	I = 2.6188 A = -0.7057	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4735 A = -0.9792	I = 3.1180 A = -0.7762 B = -0.4483	I = 3.1180 A = -0.7762 B = -0.4483	I = 3.1180 A = -0.7762 B = -0.4483	I = 2.6806 A = -0.8496	I = 2.7686 A = -0.7996		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9001 A = -0.7542	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9001 A = -0.7542	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547				
below -25 to -26 °C (below -13 to -15 °F)	100/0	I = 1.9001 A = -0.7542	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547	I = 5.5630 A = -0.7248 B = -2.5547				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	118.2	252.1	52.4	106.8	271.8	109.9	143.9	77.8	99.3	19.8	133.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	61.5	150.9	38.4	78.3	199.2	54.2	122.1	44.8	75.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	61.5	150.9	31.1	63.4	161.4	54.2	122.1	44.8	75.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	23.6	47.1	16.8	32.7	78.2						
-25	100/0	23.6	47.1	7.8	15.2	36.3						
-26	100/0	23.6	47.1	7.1	13.8	33.1						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-4: ALLCLEAR CLEARWING EG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4808 A = -0.6236	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.2517 A = -0.3764	I = 3.1105 A = -1.1890	I = 2.4690 A = -0.7435	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6368 A = -0.9489	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.7895 A = -0.7766 B = -0.1648	I = 2.1945 A = -0.3445	I = 2.8711 A = -0.9900		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.3601 A = -0.9134	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.3601 A = -0.9134	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 2.3601 A = -0.9134	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747	I = 4.7809 A = -0.8032 B = -1.7747				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2-T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	110.9	196.4	38.8	79.0	201.3	68.0	97.4	28.1	61.1	11.9	89.0
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	94.1	224.5	34.6	70.5	179.5	64.7	89.9	30.7	58.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	94.1	224.5	32.0	65.2	166.2	64.7	89.9	30.7	58.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	52.7	121.7	22.3	46.6	122.7						
-25	100/0	52.7	121.7	13.1	27.4	72.0						
-29	100/0	52.7	121.7	10.3	21.4	56.4						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-5: ASGLOBAL 4FLITE EG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5283 A = -0.7924	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.2777 A = -0.6136	I = 2.5046 A = -0.8767	I = 2.3356 A = -0.7595	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4381 A = -0.7329	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.7028 A = -0.7583 B = -0.2145	I = 2.2338 A = -0.5642	I = 2.4121 A = -0.7932		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.0968 A = -0.5619	I = 3.3322 A = -0.7962 B = -0.6729	I = 3.3322 A = -0.7962 B = -0.6729	I = 3.3322 A = -0.7962 B = -0.6729				CAUTION: No holdover time guidelines exist
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.0968 A = -0.5619	I = 3.3322 A = -0.7962 B = -0.6729	I = 3.3322 A = -0.7962 B = -0.6729	I = 3.3322 A = -0.7962 B = -0.6729				
below -25 to -30 °C (below -13 to -22 °F)	100/0	I = 2.1030 A = -0.9200	I = 2.2062 A = -0.7962 B = 0.0000	I = 2.2062 A = -0.7962 B = 0.0000	I = 2.2062 A = -0.7962 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	94.3	194.9	31.1	62.3	155.3	39.3	70.6	19.0	33.7	8.2	63.8
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	84.3	165.0	26.8	53.7	133.8	40.3	69.1	20.1	33.8		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	84.3	165.0	24.2	48.6	121.0	40.3	69.1	20.1	33.8		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	50.6	84.7	22.1	45.8	119.4						
-25	100/0	50.6	84.7	18.0	37.4	97.5						
-30	100/0	28.8	67.0	12.4	25.7	67.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-6: ASGLOBAL 4FLITE PG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4855 A = -0.6410	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.1915 A = -0.3146	I = 2.5200 A = -0.6341	I = 2.2831 A = -0.5569	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.2316 A = -0.5964	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.9661 A = -0.6490 B = -0.4864	I = 2.0710 A = -0.3106	I = 2.4941 A = -0.6796		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8152 A = -0.5003	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8152 A = -0.5003	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834				
below -25 to -26 °C (below -13 to - 15°F)	100/0	I = 1.8152 A = -0.5003	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834	I = 4.7113 A = -0.7433 B = -1.8834				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	109.0	196.1	52.3	94.9	207.2	69.4	93.7	43.0	65.1	17.3	78.3
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	65.3	112.7	37.4	67.7	147.9	53.1	71.4	35.0	54.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	65.3	112.7	29.7	53.9	117.7	53.1	71.4	35.0	54.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	29.2	46.2	16.7	32.9	80.6						
-25	100/0	29.2	46.2	9.5	18.7	45.8						
-26	100/0	29.2	46.2	8.8	17.5	42.8						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-7: AVIAFLUID AVIAFLIGHT EG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4936 A = -0.7662	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.5110 A = -0.6263	I = 2.6126 A = -0.8113	I = 2.6633 A = -0.8384	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5170 A = -0.8812	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.5416 A = -0.5966 B = -0.1650	I = 2.2536 A = -0.4445	I = 2.4418 A = -0.6514		CAUTION: No holdover time guidelines exist
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.3805 A = -1.1620	I = 3.4362 A = -0.7022 B = -0.7851	I = 3.4362 A = -0.7022 B = -0.7851	I = 3.4362 A = -0.7022 B = -0.7851				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.3805 A = -1.1620	I = 3.4362 A = -0.7022 B = -0.7851	I = 3.4362 A = -0.7022 B = -0.7851	I = 3.4362 A = -0.7022 B = -0.7851				
below -25 to -31 °C (below -13 to -24 °F)	100/0	I = 2.0469 A = -0.7482	I = 1.9668 A = -0.7022 B = 0.0000	I = 1.9668 A = -0.7022 B = 0.0000	I = 1.9668 A = -0.7022 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	90.8	183.2	39.1	67.6	138.6	65.1	118.4	30.1	51.2	12.3	119.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	79.6	178.5	34.9	60.3	123.6	57.3	87.7	34.0	52.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	79.6	178.5	32.3	55.8	114.4	57.3	87.7	34.0	52.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	37.0	107.3	27.1	51.6	120.2						
-25	100/0	37.0	107.3	21.4	40.8	94.9						
-31	100/0	33.4	66.3	9.7	18.4	42.8						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-8: AVIAFLUID AVIAFLIGHT PG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.7578 A = -0.8947	I = 3.0863 A = -0.6642 B = -0.6086	I = 3.0863 A = -0.6642 B = -0.6086	I = 3.0863 A = -0.6642 B = -0.6086	I = 2.0792 A = 0.0000	I = 2.8829 A = -0.7432	I = 2.5971 A = -0.6957	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.3529 A = -0.7865	I = 3.0863 A = -0.6642 B = -0.6086	I = 3.0863 A = -0.6642 B = -0.6086	I = 3.0863 A = -0.6642 B = -0.6086	I = 2.9286 A = -1.2431	I = 2.4317 A = -0.5672		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7548 A = -0.7332	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7548 A = -0.7332	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320				
below -25 to -25.5 °C (below -13 to -14 °F)	100/0	I = 1.7548 A = -0.7332	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320	I = 5.2600 A = -0.6724 B = -2.4320				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2-T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	135.7	307.9	54.0	99.2	220.8	120.0	120.0	69.8	113.5	19.6	129.1
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	63.6	130.7	35.4	65.1	144.8	35.0	114.7	43.5	63.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	63.6	130.7	26.6	48.9	108.8	35.0	114.7	43.5	63.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	17.5	34.2	14.3	26.5	59.6						
-25	100/0	17.5	34.2	6.9	12.8	28.7						
-25.5	100/0	17.5	34.2	6.6	12.2	27.5						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-9: CHEMCO CHEMR EG IV

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5221 A = -0.6191	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.5776 A = -0.8305	I = 2.3603 A = -0.6816	I = 2.6437 A = -0.8858	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6566 A = -1.0376	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.8018 A = -0.9158 B = 0.0000	I = 2.3439 A = -0.5194	I = 2.3463 A = -0.5867		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.1693 A = -0.8359	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.1693 A = -0.8359	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000				
below -25 to -27 °C (below -13 to -17 °F)	100/0	I = 2.1693 A = -0.8359	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000	I = 2.3992 A = -0.7726 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	122.8	216.6	33.2	76.9	231.7	44.9	99.3	25.6	39.9	9.6	105.8
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	85.4	220.9	33.2	76.9	231.7	58.3	95.7	33.6	49.3		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	85.4	220.9	33.2	76.9	231.7	58.3	95.7	33.6	49.3		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	38.5	82.7	20.9	42.3	107.3						
-25	100/0	38.5	82.7	20.9	42.3	107.3						
-27	100/0	38.5	82.7	20.9	42.3	107.3						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-10: CHEMCO CHEMR NORDIK IV

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.6325 A = -0.7158	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.6092 A = -0.6398	I = 2.4979 A = -0.5367	I = 2.5308 A = -0.6285	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6790 A = -0.9206	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.7042 A = -0.6856 B = 0.0000	I = 2.5682 A = -0.6212	I = 2.7893 A = -0.7992		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.2331 A = -0.9189	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.2331 A = -0.9189	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 2.2331 A = -0.9189	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607	I = 4.2171 A = -0.7360 B = -1.1607				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	135.6	261.2	55.7	104.4	238.3	78.8	145.2	55.9	79.4	22.5	123.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	108.5	252.3	55.7	104.4	238.3	75.2	136.1	47.0	79.3		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	108.5	252.3	55.7	104.4	238.3	75.2	136.1	47.0	79.3		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	39.0	90.5	47.7	93.5	226.9						
-25	100/0	39.0	90.5	33.6	66.0	160.2						
-29	100/0	39.0	90.5	28.7	56.2	136.4						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-11: CLARIANT MAX FLIGHT AVIA

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4864 A = -0.3214	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.5168 A = -0.5284	I = 2.2295 A = -0.3416	I = 2.8870 A = -1.0183	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6347 A = -0.8798	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.8243 A = -0.6182 B = -0.2788	I = 2.5583 A = -0.6474	I = 2.7838 A = -0.7360		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.1916 A = -0.8933	I = 2.2480 A = -0.9120 B = 0.0000	I = 2.1544 A = -0.7565 B = 0.0000	I = 2.3979 A = -1.0000 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.1916 A = -0.8933	I = 2.2685 A = -1.1070 B = 0.0000	I = 2.2465 A = -1.0704 B = 0.0000	I = 2.3751 A = -1.1990 B = 0.0000				
below -25 to -28.5 °C (below -13 to -19 °F)	100/0	I = 2.1916 A = -0.8933	I = 2.1021 A = -1.1696 B = 0.0000	I = 2.1466 A = -1.2435 B = 0.0000	I = 2.4160 A = -1.5129 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	182.7	245.3	58.2	102.6	216.0	84.8	140.4	56.5	70.6	9.5	149.7
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	104.7	234.3	48.0	84.6	178.1	68.7	127.6	56.9	92.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	104.7	234.3	42.1	74.2	156.2	68.7	127.6	56.9	92.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	36.9	83.7	10.0	25.0	65.0						
-25	100/0	36.9	83.7	5.0	15.0	55.0						
-28.5	100/0	36.9	83.7	2.0	8.0	35.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-12: CLARIANT MAX FLIGHT SNEG

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5734 A = -0.5916	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.1201 A = -0.0318	I = 3.1463 A = -1.0213	I = 2.3856 A = -0.6074	
	75/25	I = 2.3956 A = -0.0226	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.3595 A = -0.3733	I = 2.1906 A = -0.2633	I = 2.5045 A = -0.7062	
	50/50	I = 2.6114 A = -0.9560	I = 2.5982 A = -0.9523 B = 0.0000	I = 2.5982 A = -0.9523 B = 0.0000	I = 2.5982 A = -0.9523 B = 0.0000	I = 2.3438 A = -0.7175	I = 2.7427 A = -1.1421	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5197 A = -1.2481	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.8863 A = -0.6493 B = -0.3359	I = 2.7003 A = -1.0853	I = 2.6961 A = -0.9598		
	75/25	I = 2.2989 A = -1.2091	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.6974 A = -0.5329 B = -0.3096	I = 2.5864 A = -1.1239	I = 2.7996 A = -1.0818		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9524 A = -0.8898	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9524 A = -0.8898	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.9524 A = -0.8898	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	144.5	248.5	55.4	100.5	219.6	121.5	125.3	52.3	102.0	17.6	91.4
	75/25	239.8	244.8	54.5	88.7	168.6	87.8	125.5	66.5	78.9	15.1	102.5
	50/50	87.7	210.7	18.5	44.2	139.3	35.0	69.5	14.0	29.5		
-8	100/0	44.4	139.3	43.9	79.6	174.0	31.0	87.4	22.6	42.4		
	75/25	28.4	86.1	43.9	71.6	136.0	21.6	63.2	19.4	39.3		
-10 / -14 ***	100/0	44.4	139.3	37.5	68.0	148.6	31.0	87.4	22.6	42.4		
	75/25	28.4	86.1	38.0	61.9	117.6	21.6	63.2	19.4	39.3		
-18	100/0	21.4	48.4	2.0	9.0	45.0						
-25	100/0	21.4	48.4	1.0	3.0	20.0						
-29	100/0	21.4	48.4	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-13: CLARIANT SAFEWING EG IV NORTH

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5514 A = -0.5862	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.4593 A = -0.4518	I = 2.0514 A = -0.2650	I = 2.7876 A = -0.9859	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6521 A = -0.9130	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.7261 A = -0.6800 B = -0.0814	I = 2.4417 A = -0.5677	I = 2.7481 A = -0.7299		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.1343 A = -0.7329	I = 2.2480 A = -0.9120 B = 0.0000	I = 2.1544 A = -0.7565 B = 0.0000	I = 2.3979 A = -1.0000 B = 0.0000			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.1343 A = -0.7329	I = 2.2685 A = -1.1070 B = 0.0000	I = 2.2465 A = -1.0704 B = 0.0000	I = 2.3751 A = -1.1990 B = 0.0000				
below -25 to -30 °C (below -13 to -22 °F)	100/0	I = 2.1343 A = -0.7329	I = 2.1021 A = -1.1696 B = 0.0000	I = 2.1466 A = -1.2435 B = 0.0000	I = 2.4160 A = -1.5129 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	138.6	237.1	52.3	97.5	221.2	90.4	139.2	48.0	57.0	8.7	125.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	103.3	238.4	49.4	92.2	209.1	64.5	110.9	53.4	86.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	103.3	238.4	47.6	88.7	201.2	64.5	110.9	53.4	86.1		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	41.9	82.0	10.0	25.0	65.0						
-25	100/0	41.9	82.0	5.0	15.0	55.0						
-30	100/0	41.9	82.0	2.0	8.0	35.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-14: CLARIANT SAFEWING MP IV LAUNCH

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.3942 A = 0.0152	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7789 A = -0.7426	I = 2.9492 A = -0.8489	I = 2.5170 A = -0.7291	
	75/25	I = 2.4388 A = -0.1431	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.7945 A = -0.7101	I = 2.7548 A = -0.7917	I = 2.6192 A = -0.8499	
	50/50	I = 2.4323 A = -0.7333	I = 2.3978 A = -0.6703 B = -0.1021	I = 2.3978 A = -0.6703 B = -0.1021	I = 2.3978 A = -0.6703 B = -0.1021	I = 2.0818 A = -0.5727	I = 1.7686 A = -0.3607	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.2823 A = -0.7333	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7218 A = -0.5330 B = -0.2408	I = 2.7424 A = -1.0767	I = 2.6379 A = -0.8846		
	75/25	I = 2.1203 A = -0.7220	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.7841 A = -0.6180 B = -0.2044	I = 2.6204 A = -1.0940	I = 2.4901 A = -0.7708		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8894 A = -0.6349	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8894 A = -0.6349	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993				
below -25 to -28.5 °C (below -13 to -19 °F)	100/0	I = 1.8894 A = -0.6349	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993	I = 6.5565 A = -1.3090 B = -2.9993				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	254.0	250.5	64.3	104.8	199.2	89.5	181.9	57.9	100.8	14.1	101.7
	75/25	218.2	248.7	59.9	105.5	222.0	100.8	198.7	44.5	74.6	10.6	106.0
	50/50	83.1	162.8	24.5	45.3	101.5	27.8	48.0	18.4	23.3		
-8	100/0	58.8	115.2	54.4	88.7	168.5	34.9	97.7	25.2	44.9		
	75/25	41.3	80.0	52.0	91.6	192.7	25.2	71.7	25.9	42.8		
-10 / -14 ***	100/0	58.8	115.2	48.6	79.2	150.5	34.9	97.7	25.2	44.9		
	75/25	41.3	80.0	47.2	83.2	175.0	25.2	71.7	25.9	42.8		
-18	100/0	27.9	49.9	6.7	22.1	107.1						
-25	100/0	27.9	49.9	2.7	9.0	43.5						
-28.5	100/0	27.9	49.9	1.9	6.2	30.2						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-15: CLARIANT SAFEWING MP IV LAUNCH PLUS

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.3920 A = -0.0283	I = 3.2161 A = -0.8902 B = -0.3284	I = 3.2161 A = -0.8902 B = -0.3284	I = 3.2161 A = -0.8902 B = -0.3284	I = 2.1074 A = -0.0294	I = 3.1822 A = -0.9927	I = 2.5435 A = -0.6674	
	75/25	I = 2.3948 A = -0.0330	I = 3.2776 A = -0.9501 B = -0.3856	I = 3.2776 A = -0.9501 B = -0.3856	I = 3.2776 A = -0.9501 B = -0.3856	I = 2.0839 A = -0.0124	I = 2.0297 A = -0.0872	I = 2.4962 A = -0.6485	
	50/50	I = 2.1682 A = -0.4153	I = 2.6868 A = -0.8488 B = -0.2819	I = 2.6868 A = -0.8488 B = -0.2819	I = 2.6868 A = -0.8488 B = -0.2819	I = 2.4651 A = -0.9953	I = 1.8233 A = -0.4948	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4166 A = -0.9721	I = 3.2161 A = -0.8902 B = -0.3284	I = 3.2161 A = -0.8902 B = -0.3284	I = 3.2161 A = -0.8902 B = -0.3284	I = 2.8810 A = -1.3058	I = 2.2126 A = -0.5630		
	75/25	I = 2.4251 A = -1.1486	I = 3.2776 A = -0.9501 B = -0.3856	I = 3.2776 A = -0.9501 B = -0.3856	I = 3.2776 A = -0.9501 B = -0.3856	I = 2.5583 A = -1.0902	I = 2.1385 A = -0.5738		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9339 A = -0.8158	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9339 A = -0.8158	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.9339 A = -0.8158	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196	I = 6.5722 A = -1.2696 B = -3.0196				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2-T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	235.6	241.8	55.2	124.8	364.6	118.8	122.1	62.3	119.2	19.6	119.4
	75/25	235.4	242.6	47.9	114.3	358.7	117.5	118.9	80.9	85.6	19.1	110.4
	50/50	75.5	110.5	20.1	43.7	121.6	22.7	58.8	13.5	18.7		
-8	100/0	54.6	133.0	44.0	99.4	290.4	26.7	93.0	26.6	38.5		
	75/25	41.9	120.0	36.6	87.5	274.6	22.1	62.6	21.7	31.6		
-10 / -14 ***	100/0	54.6	133.0	37.7	85.2	248.8	26.7	93.0	26.6	38.5		
	75/25	41.9	120.0	30.6	73.0	229.1	22.1	62.6	21.7	31.6		
-18	100/0	23.1	48.8	7.4	23.7	109.1						
-25	100/0	23.1	48.8	3.0	9.6	44.1						
-29	100/0	23.1	48.8	2.0	6.3	29.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-16: CRYOTECH POLAR GUARD® ADVANCE

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5794 A = -0.5025	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.2682 A = -0.2524	I = 2.2584 A = -0.2806	I = 2.6661 A = -0.7999	
	75/25	I = 2.5776 A = -0.5705	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.2204 A = -0.1898	I = 2.8328 A = -0.8896	I = 2.6248 A = -0.8807	
	50/50	I = 2.1254 A = -0.6271	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.8810 A = -1.0631 B = -0.5673	I = 2.2943 A = -0.9086	I = 2.3695 A = -0.9996	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5101 A = -1.1145	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.9600 A = -0.5988 B = -0.4378	I = 2.7077 A = -1.0390	I = 2.0801 A = -0.3886		
	75/25	I = 2.2594 A = -0.9785	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.9905 A = -0.8191 B = -0.3466	I = 2.4495 A = -0.9076	I = 2.0483 A = -0.3597		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9253 A = -0.6979	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9253 A = -0.6979	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134	I = 6.4718 A = -1.1603 B = -2.9134				
below -25 to -30.5 °C (below -13 to -23 °F)	100/0	I = 1.9253 A = -0.6979	I = 2.0544 A = -1.1592 B = 0.0000	I = 2.0544 A = -1.1592 B = 0.0000	I = 2.0544 A = -1.1592 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	169.1	268.0	65.6	113.6	233.5	97.1	123.5	73.5	88.3	14.7	127.9
	75/25	151.0	254.6	40.1	84.9	227.7	102.1	122.4	38.8	69.5	9.4	102.1
	50/50	48.6	86.4	10.0	26.4	94.9	19.2	45.6	9.4	18.0		
-8	100/0	53.8	149.5	48.4	83.8	172.4	35.5	95.8	34.4	44.4		
	75/25	37.6	92.2	31.5	66.8	179.1	27.4	65.3	35.1	44.4		
-10 / -14 ***	100/0	53.8	149.5	39.4	68.2	140.3	35.5	95.8	34.4	44.4		
	75/25	37.6	92.2	26.8	56.8	152.2	27.4	65.3	35.1	44.4		
-18	100/0	27.4	51.9	11.5	33.2	134.2						
-25	100/0	27.4	51.9	4.8	13.8	56.0						
-30.5	100/0	27.4	51.9	2.7	7.9	31.7						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-17: CRYOTECH POLAR GUARD® XTEND

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5325 A = -0.5036	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.0792 A = 0.0000	I = 3.0299 A = -0.8932	I = 2.4479 A = -0.6234	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.2661 A = -0.7204	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.9681 A = -0.6559 B = -0.3399	I = 2.7919 A = -1.1481	I = 1.9558 A = -0.1963		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7603 A = -0.5578	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7603 A = -0.5578	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 1.7603 A = -0.5578	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905	I = 6.6792 A = -0.8166 B = -3.2905				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	151.5	240.4	65.1	118.7	261.6	120.0	120.0	60.4	108.4	19.0	102.8
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	57.9	112.0	51.4	93.8	206.7	32.6	97.6	48.0	54.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	57.9	112.0	43.8	80.0	176.1	32.6	97.6	48.0	54.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	23.5	39.1	18.1	38.2	102.0						
-25	100/0	23.5	39.1	6.7	14.2	38.0						
-29	100/0	23.5	39.1	4.3	9.0	24.1						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-18: DOW CHEMICAL UCAR ENDURANCE™ EG106

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4198 A = -0.4664	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.4460 A = -0.5295	I = 2.5011 A = -0.5672	I = 2.5903 A = -0.7102	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4942 A = -0.6588	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.8358 A = -0.7951 B = -0.1996	I = 2.5065 A = -0.6779	I = 2.6525 A = -0.7145		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.0589 A = -0.7941	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.0589 A = -0.7941	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 2.0589 A = -0.7941	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048	I = 3.3185 A = -0.8385 B = -0.6048				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	124.1	190.3	38.4	79.6	207.5	71.8	119.1	51.1	74.0	18.1	124.1
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	108.1	197.6	33.5	69.4	180.7	56.4	107.8	45.0	71.9		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	108.1	197.6	30.5	63.1	164.5	56.4	107.8	45.0	71.9		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	31.9	66.0	22.9	49.3	135.4						
-25	100/0	31.9	66.0	19.1	41.1	112.9						
-29	100/0	31.9	66.0	17.6	37.8	103.9						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-19: DOW CHEMICAL UCAR™ FLIGHTGUARD™ AD-49

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4713 A = -0.2370	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 2.3729 A = -0.3927	I = 2.4943 A = -0.5000	I = 2.6531 A = -0.8558	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5177 A = -1.7715	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 3.0052 A = -0.7148 B = -0.3380	I = 2.8172 A = -1.2681	I = 1.9828 A = -0.5016		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.7838 A = -0.5976	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.7838 A = -0.5976	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -26 °C (below -13 to -15 °F)	100/0	I = 1.7838 A = -0.5976	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	202.1	251.2	58.8	113.3	267.9	86.2	125.4	62.4	86.6	11.2	113.5
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	19.0	96.5	46.6	89.6	211.9	25.4	85.3	19.1	26.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	19.0	96.5	39.7	76.5	180.8	25.4	85.3	19.1	26.5		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	23.2	40.2	2.0	9.0	45.0						
-25	100/0	23.2	40.2	1.0	3.0	20.0						
-26	100/0	23.2	40.2	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-20: INLAND TECHNOLOGIES ECO-SHIELD®

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4628 A = -0.8425	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.5329 A = -0.8434	I = 1.8305 A = -0.1843	I = 2.4740 A = -0.7236	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4493 A = -0.8541	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.6693 A = -0.6224 B = -0.2015	I = 2.3150 A = -0.5411	I = 1.9809 A = -0.3441		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9894 A = -0.6913	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9894 A = -0.6913	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -25.5 °C (below -13 to -14 °F)	100/0	I = 1.9894 A = -0.6913	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

CAUTION: No holdover time guidelines exist

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	74.8	161.9	45.5	80.5	170.4	39.2	87.8	37.4	42.2	13.1	92.9
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	71.2	155.7	39.6	70.0	148.2	51.6	86.5	31.6	39.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	71.2	155.7	36.0	63.7	134.8	51.6	86.5	31.6	39.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	32.1	60.4	2.0	9.0	45.0						
-25	100/0	32.1	60.4	1.0	3.0	20.0						
-25.5	100/0	32.1	60.4	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-21: JSC RCP NORDIX DEFROST ECO 4

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.4080 A = -0.6597	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.1497 A = -0.2970	I = 2.5972 A = -0.7187	I = 2.2932 A = -0.6241	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.5248 A = -1.1145	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.7595 A = -0.7621 B = -0.1757	I = 2.2310 A = -0.4646	I = 2.2288 A = -0.4780		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		CAUTION: No holdover time guidelines exist
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.8711 A = -0.5814	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.8711 A = -0.5814	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -25.5 °C (below -13 to -14 °F)	100/0	I = 1.8711 A = -0.5814	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	88.5	162.0	37.3	74.9	187.5	65.9	87.5	39.1	62.6	13.3	71.9
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	55.7	154.6	33.0	66.3	166.0	51.7	80.6	36.4	49.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	55.7	154.6	30.4	61.1	152.9	51.7	80.6	36.4	49.7		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	29.2	49.7	2.0	9.0	45.0						
-25	100/0	29.2	49.7	1.0	3.0	20.0						
-25.5	100/0	29.2	49.7	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-22: JSC RCP NORDIX DEFROST NORTH 4

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.6515 A = -0.7575	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.6377 A = -0.7492	I = 2.4403 A = -0.6778	I = 2.7110 A = -0.9348	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6157 A = -0.5906	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.7447 A = -0.8267 B = 0.0000	I = 2.6041 A = -0.7058	I = 2.5954 A = -0.7285		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.3727 A = -1.0450	I = 2.2480 A = -0.9120 B = 0.0000	I = 2.1544 A = -0.7565 B = 0.0000	I = 2.3979 A = -1.0000 B = 0.0000			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.3727 A = -1.0450	I = 2.2685 A = -1.1070 B = 0.0000	I = 2.2465 A = -1.0704 B = 0.0000	I = 2.3751 A = -1.1990 B = 0.0000				
below -25 to -26 °C (below -13 to -15 °F)	100/0	I = 2.3727 A = -1.0450	I = 2.1021 A = -1.1696 B = 0.0000	I = 2.1466 A = -1.2435 B = 0.0000	I = 2.4160 A = -1.5129 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)

2 Regression Equation: $t = 10^{I} R^{A} (2-T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)

3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	132.4	265.1	38.8	82.8	224.0	63.6	130.0	31.1	48.4	9.1	114.2
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	159.5	274.1	38.8	82.8	224.0	65.7	129.1	37.8	60.8		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	159.5	274.1	38.8	82.8	224.0	65.7	129.1	37.8	60.8		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	43.9	114.3	10.0	25.0	65.0						
-25	100/0	43.9	114.3	5.0	15.0	55.0						
-26	100/0	43.9	114.3	2.0	8.0	35.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow

** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-23: KILFROST ABC-S PLUS

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.5882 A = -0.6773	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.1349 A = -0.0810	I = 3.2080 A = -1.0102	I = 2.5437 A = -0.6337	
	75/25	I = 2.4204 A = -0.6975	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.1108 A = -0.2951	I = 2.5019 A = -0.7097	I = 2.4230 A = -0.7288	
	50/50	I = 1.8988 A = -0.5888	I = 2.1742 A = -0.6668 B = 0.0000	I = 2.1742 A = -0.6668 B = 0.0000	I = 2.1742 A = -0.6668 B = 0.0000	I = 2.2203 A = -0.8993	I = 1.7490 A = -0.4516	CAUTION: No holdover time guidelines exist	
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.7468 A = -1.4224	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.7997 A = -0.5886 B = -0.1639	I = 2.9992 A = -1.4676	I = 2.3542 A = -0.7931		
	75/25	I = 2.3554 A = -1.0359	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.5586 A = -0.5815 B = -0.1638	I = 2.8273 A = -1.3891	I = 2.1553 A = -0.6538		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9370 A = -0.5185	I = 2.3257 A = -1.4094 B = 0.0000	I = 2.2682 A = -1.3140 B = 0.0000	I = 2.5957 A = -1.6415 B = 0.0000				
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9370 A = -0.5185	I = 2.4506 A = -2.4094 B = 0.0000	I = 1.7911 A = -1.3140 B = 0.0000	I = 1.6761 A = -1.1990 B = 0.0000				
below -25 to -28 °C (below -13 to -18 °F)	100/0	I = 1.9370 A = -0.5185	I = 1.5915 A = -1.2398 B = 0.0000	I = 1.6682 A = -1.3672 B = 0.0000	I = 6.0834 A = -5.7824 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	130.3	242.3	72.8	124.9	253.7	110.8	119.8	62.5	121.0	22.7	126.1
	75/25	85.7	162.3	42.8	72.9	146.8	60.5	80.3	32.3	51.4	11.4	82.0
	50/50	30.7	52.7	17.5	32.2	71.8	16.5	39.1	13.1	17.6		
-8	100/0	56.6	208.3	65.0	111.5	226.4	23.1	94.1	17.6	29.6		
	75/25	42.8	110.6	38.2	65.1	131.0	19.1	71.8	17.4	26.7		
-10 / -14 ***	100/0	56.6	208.3	60.2	103.2	209.7	23.1	94.1	17.6	29.6		
	75/25	42.8	110.6	35.4	60.2	121.3	19.1	71.8	17.4	26.7		
-18	100/0	37.5	60.4	2.0	9.0	45.0						
-25	100/0	37.5	60.4	1.0	3.0	20.0						
-28	100/0	37.5	60.4	0.0	2.0	10.0						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-24: NEWAVE AEROCHEMICAL FCY 9311

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.6186 A = -0.7874	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.5218 A = -0.6026	I = 2.7035 A = -0.8019	I = 2.4128 A = -0.6988	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.4840 A = -1.3099	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.8340 A = -0.7480 B = -0.3361	I = 2.4894 A = -0.8313	I = 2.3272 A = -0.7195		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 1.9261 A = -0.6637	I = 4.8041 A = -0.8155 B = -1.9481	I = 4.8041 A = -0.8155 B = -1.9481	I = 4.8041 A = -0.8155 B = -1.9481				CAUTION: No holdover time guidelines exist
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 1.9261 A = -0.6637	I = 4.8041 A = -0.8155 B = -1.9481	I = 4.8041 A = -0.8155 B = -1.9481	I = 4.8041 A = -0.8155 B = -1.9481				
below -25 to -29.5 °C (below -13 to -21 °F)	100/0	I = 1.9261 A = -0.6637	I = 1.9749 A = -0.8155 B = 0.0000	I = 1.9749 A = -0.8155 B = 0.0000	I = 1.9749 A = -0.8155 B = 0.0000				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	117.0	240.8	35.8	71.0	174.7	70.9	126.1	38.2	64.6	12.7	84.0
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	37.0	122.9	28.3	56.2	138.4	36.6	81.0	21.0	33.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	37.0	122.9	24.2	48.0	118.1	36.6	81.0	21.0	33.6		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	29.0	53.2	13.5	28.4	75.9						
-25	100/0	29.0	53.2	7.5	15.9	42.3						
-29.5	100/0	29.0	53.2	6.8	14.4	38.5						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-25: NEWAVE AEROCHEMICAL FCY-EGIV

REGRESSION COEFFICIENTS TABLE AND VERIFICATION TABLE

Outside Air Temperature	Fluid Dilution	Regression Coefficients for Calculating Holdover Times Under Various Weather Conditions							
		Freezing Fog, Freezing Mist, or Ice Crystals[1]	Snow, Snow Grains or Snow Pellets[2,3]			Freezing Drizzle[1]	Light Freezing Rain[1]	Rain on Cold Soaked Wing[1]	Other
			< 4 g/dm²/h	4 to <10 g/dm²/h	≥ 10 g/dm²/h				
-3 °C and above (27 °F and above)	100/0	I = 2.7246 A = -0.7713	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.5738 A = -0.6025	I = 2.6083 A = -0.7282	I = 2.6420 A = -0.7798	
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	50/50	n/a	n/a	n/a	n/a	n/a	n/a		
below -3 to -14 °C (below 27 to 7 °F)	100/0	I = 2.6090 A = -0.9888	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.9022 A = -0.8496 B = -0.2809	I = 2.8537 A = -1.0325	I = 2.4852 A = -0.6098		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a		
below -14 to -18 °C (below 7 to 0 °F)	100/0	I = 2.4392 A = -1.2580	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268			CAUTION: No holdover time guidelines exist	
below -18 to -25 °C (below 0 to -13 °F)	100/0	I = 2.4392 A = -1.2580	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268				
below -25 to -29 °C (below -13 to -20 °F)	100/0	I = 2.4392 A = -1.2580	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268	I = 3.8875 A = -0.9433 B = -1.0268				

1 Regression Equation: $t = 10^{I} R^{A}$, where t = holdover time (minutes) and R = precipitation rate (g/dm²/h)
2 Regression Equation: $t = 10^{I} R^{A} (2\text{-}T)^{B}$, where t = holdover time (minutes), R = precipitation rate (g/dm²/h) and T = temperature (°C)
3 CAUTION: Use of these coefficients is limited by the lowest usable precipitation rates provided in Table 5 and the highest usable precipitation rates provided in Table 6

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	2	25	10	LUPR*	13	5	25	13	75	5
+1 / -3 **	100/0	153.3	310.8	33.0	71.8	199.8	79.9	142.1	38.9	62.7	15.1	125.0
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	50/50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-8	100/0	82.8	204.8	27.1	59.1	164.4	50.5	135.5	42.9	64.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-10 / -14 ***	100/0	82.8	204.8	23.8	51.8	144.1	50.5	135.5	42.9	64.0		
	75/25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
-18	100/0	36.3	114.9	17.1	40.6	126.3						
-25	100/0	36.3	114.9	12.6	29.8	92.8						
-29	100/0	36.3	114.9	10.9	25.9	80.6						

* Refer to Table 5 for the lowest usable precipitation rates in snow
** Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C
*** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 4-26: TYPE IV GENERIC

VERIFICATION TABLE

Outside Air Temp. (°C)	Fluid Dilution	HOTDS Verification Times Under Various Weather Conditions (minutes) *As Calculated from Regression Coefficients*										
		Freezing Fog, Freezing Mist, or Ice Crystals (g/dm²/h)		Snow, Snow Grains or Snow Pellets (g/dm²/h)			Freezing Drizzle (g/dm²/h)		Light Freezing Rain (g/dm²/h)		Rain on Cold Soaked Wing (g/dm²/h)	
		5	**2**	**25**	**10**	**3**	**13**	**5**	**25**	**13**	**75**	**5**
+1 / -3 *	100/0	74.8	161.9	31.1	62.3	138.6	39.2	70.6	19.0	33.7	8.2	63.8
	75/25	85.7	162.3	40.1	72.9	146.8	60.5	80.3	32.3	51.4	9.4	82.0
	50/50	30.7	52.7	10.0	26.4	71.8	16.5	39.1	9.4	17.6		
-8	100/0	19.0	96.5	26.8	53.7	123.6	23.1	69.1	17.6	26.5		
	75/25	28.4	80.0	31.5	65.1	131.0	19.1	62.6	17.4	26.7		
-10 / -14 **	100/0	19.0	96.5	23.8	48.0	108.8	23.1	69.1	17.6	26.5		
	75/25	28.4	80.0	26.8	56.8	117.6	19.1	62.6	17.4	26.7		
-18	100/0	17.5	34.2	2.0	9.0	45.0						
-25	100/0	17.5	34.2	1.0	3.0	20.0						

* Rain on cold soaked wing calculated at +1°C; all other conditions calculated at -3°C

** Freezing fog and snow calculated at -14°C; freezing drizzle and light freezing rain calculated at -10°C

TABLE 5: LOWEST USABLE PRECIPITATION RATES IN SNOW[1]

TYPE II, TYPE III AND TYPE IV FLUIDS[2]

Type II De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-14°C AND ABOVE***	***BELOW -14°C***	***-14°C AND ABOVE***	***-3°C AND ABOVE***
ABAX ECOWING AD-2	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Aviation Xi'an High-Tech Cleanwing II	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Clariant Safewing MP II FLIGHT	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Clariant Safewing MP II FLIGHT PLUS	4 g/dm²/h	10 g/dm²/h	3 g/dm²/h	4 g/dm²/h
Cryotech Polar Guard® II	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
JSC RCP NORDIX Defrost PG 2	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Kilfrost ABC-K Plus	3 g/dm²/h	10 g/dm²/h	4 g/dm²/h	3 g/dm²/h
Kilfrost Ice Clear II	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
MKS DevO COREICEPHOB Type II	3 g/dm²/h	3 g/dm²/h	not applicable	3 g/dm²/h
Newave Aerochemical FCY-2	3 g/dm²/h	10 g/dm²/h	3 g/dm²/h	3 g/dm²/h
ROMCHIM ADD-PROTECT NG Type II	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
ROMCHIM ADD-PROTECT Type II	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h

Type III De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-25°C AND ABOVE***	***BELOW -25°C***	***-10°C AND ABOVE***	***-3°C AND ABOVE***
AllClear AeroClear MAX	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable

1 The lowest precipitation rate to be used as an input to the snow regression equations is constrained by the higher of: (1) the minimum demonstrated precipitation measuring equipment rates in accordance with the FAA LWES AC (in no case less than 2.0 g/dm²/h) or (2) the lowest usable precipitation rate (LUPR) for the fluid/dilution/temperature as defined in this table.

2 Type I fluids are limited only by the general precipitation rate limitations set out in the FAA LWES AC.

TABLE 5: LOWEST USABLE PRECIPITATION RATES IN SNOW[1] (cont'd)

TYPE II, TYPE III AND TYPE IV FLUIDS[2]

Type IV De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-14°C AND ABOVE***	***BELOW -14°C***	***-14°C AND ABOVE***	***-3°C AND ABOVE***
ABAX ECOWING AD-49	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
ALAB International PROFLIGHT EG4	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
AllClear ClearWing ECO	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
AllClear ClearWing EG	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
ASGlobal 4Flite EG	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
ASGlobal 4Flite PG	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
AVIAFLUID AVIAFlight EG	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
AVIAFLUID AVIAFlight PG	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
CHEMCO ChemR EG IV	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
CHEMCO ChemR Nordik IV	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Clariant Max Flight AVIA	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Clariant Max Flight SNEG	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Clariant Safewing EG IV NORTH	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Clariant Safewing MP IV LAUNCH	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Clariant Safewing MP IV LAUNCH PLUS	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Cryotech Polar Guard® Advance	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Cryotech Polar Guard® Xtend	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Dow UCAR Endurance™ EG106	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Dow UCAR™ FlightGuard™ AD-49	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Inland Technologies ECO-SHIELD®	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
JSC RCP NORDIX Defrost ECO 4	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
JSC RCP NORDIX Defrost NORTH 4	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Kilfrost ABC-S Plus	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h	3 g/dm²/h
Newave Aerochemical FCY 9311	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable
Newave Aerochemical FCY-EGIV	3 g/dm²/h	3 g/dm²/h	not applicable	not applicable

1 The lowest precipitation rate to be used as an input to the snow regression equations is constrained by the higher of: (1) the minimum demonstrated precipitation measuring equipment rates in accordance with the FAA LWES AC (in no case less than 2.0 g/dm²/h) or (2) the lowest usable precipitation rate (LUPR) for the fluid/dilution/temperature as defined in this table.

2 Type I fluids are limited only by the general precipitation rate limitations set out in the FAA LWES AC.

TABLE 6: HIGHEST USABLE PRECIPITATION RATES IN SNOW[1]

TYPE II, TYPE III AND TYPE IV FLUIDS[2]

Type II De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-14°C AND ABOVE***	***BELOW -14°C***	***-14°C AND ABOVE***	***-3°C AND ABOVE***
ABAX ECOWING AD-2	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Aviation Xi'an High-Tech Cleanwing II	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Clariant Safewing MP II FLIGHT	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	40 g/dm²/h
Clariant Safewing MP II FLIGHT PLUS	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	40 g/dm²/h
Cryotech Polar Guard® II	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
JSC RCP NORDIX Defrost PG 2	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Kilfrost ABC-K Plus	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	25 g/dm²/h
Kilfrost Ice Clear II	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
MKS DevO COREICEPHOB Type II	50 g/dm²/h	25 g/dm²/h	not applicable	50 g/dm²/h
Newave Aerochemical FCY-2	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
ROMCHIM ADD-PROTECT NG Type II	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
ROMCHIM ADD-PROTECT Type II	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h

Type III De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-25°C AND ABOVE***	***BELOW -25°C***	***-10°C AND ABOVE***	***-3°C AND ABOVE***
AllClear AeroClear MAX	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable

1 The highest precipitation rate to be used as an input to the snow regression equations is constrained by the lower of: (1) the maximum allowable precipitation rate for snow specified in the FAA LWES AC (50 g/dm²/h) or (2) the highest usable precipitation rate (HUPR) for the fluid/dilution/temperature as defined in this table.

2 Type I fluids are limited only by the general precipitation rate limitations set out in the FAA LWES AC.

TABLE 6: HIGHEST USABLE PRECIPITATION RATES IN SNOW[1] (cont'd)

TYPE II, TYPE III AND TYPE IV FLUIDS[2]

Type IV De/Anti-Icing Fluids				
FLUID DILUTION	**100/0**		**75/25**	**50/50**
TEMPERATURE	***-14°C AND ABOVE***	***BELOW -14°C***	***-14°C AND ABOVE***	***-3°C AND ABOVE***
ABAX ECOWING AD-49	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
ALAB International PROFLIGHT EG4	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
AllClear ClearWing ECO	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
AllClear ClearWing EG	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
ASGlobal 4Flite EG	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
ASGlobal 4Flite PG	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
AVIAFLUID AVIAFlight EG	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
AVIAFLUID AVIAFlight PG	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
CHEMCO ChemR EG IV	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
CHEMCO ChemR Nordik IV	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Clariant Max Flight AVIA	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Clariant Max Flight SNEG	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Clariant Safewing EG IV NORTH	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Clariant Safewing MP IV LAUNCH	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Clariant Safewing MP IV LAUNCH PLUS	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Cryotech Polar Guard® Advance	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Cryotech Polar Guard® Xtend	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Dow UCAR Endurance™ EG106	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Dow UCAR™ FlightGuard™ AD-49	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Inland Technologies ECO-SHIELD®	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
JSC RCP NORDIX Defrost ECO 4	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
JSC RCP NORDIX Defrost NORTH 4	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Kilfrost ABC-S Plus	50 g/dm²/h	25 g/dm²/h	50 g/dm²/h	50 g/dm²/h
Newave Aerochemical FCY 9311	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable
Newave Aerochemical FCY-EGIV	50 g/dm²/h	25 g/dm²/h	not applicable	not applicable

1 The highest precipitation rate to be used as an input to the snow regression equations is constrained by the lower of: (1) the maximum allowable precipitation rate for snow specified in the FAA LWES AC (50 g/dm²/h) or (2) the highest usable precipitation rate (HUPR) for the fluid/dilution/temperature as defined in this table.

2 Type I fluids are limited only by the general precipitation rate limitations set out in the FAA LWES AC.