



Protective & Marine Coatings

FLUOROKEM™ HS FLUOROPOLYMER URETHANE

Part A B65-560
Part A B65-570
Part A B65-580
Part B B65V580

Satin
Semi-Gloss
Gloss
Hardener

Revised: Nov. 29, 2017

PRODUCT INFORMATION

5.37

PRODUCT DESCRIPTION

FLUOROKEM HS is a premium, ultra-durable ambient cured high solids fluoropolymer urethane finish. Provides unparalleled color and gloss performance, even in the most severe exposures.

- Superior exterior durability
- Fast dry
- Graffiti resistant
- Chemical and abrasion resistant
- Airless, conventional spray, and brush and roll application
- Ambient temperature cure

PRODUCT CHARACTERISTICS

Finish: Satin, 15-25 units @ 60 degrees
Semi-Gloss, 50-60 units @ 60 degrees
Gloss, 80+ units @ 60 degrees

Color: Wide range of colors available

Volume Solids: 60% ± 2%
(mixed, may vary by color)

Weight Solids: 77% ± 2%
(mixed, may vary by color)

VOC (EPA Method #24): <340 g/L; <2.8lb/gal, mixed

Mix Ratio: 4:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.5 (90)	5.0 (125)
Dry mils (microns)	2.0 (50)	3.0 (75)
~Coverage sq ft/gal (m ² /L)	321 (7.9)	481 (11.8)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	960 (23.5)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 4.0 mils wet (100 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	4 hours	2 hours
To recoat:			
minimum:	24 hours	4 hours	2 hours
maximum:	45 days	45 days	45 days
Pot Life:	4 hours	2 hours	30 minutes
Sweat-in-Time:	None required		

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Shelf Life: 12 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point: <60°F (16°C), PMCC, mixed

Reducer: R7K111(VOC exempt), as needed up to 5%

Clean Up: R7K15

RECOMMENDED USES

Interior or exterior exposure where extreme weather durability is required.

- Water tanks
- Storage tank exteriors
- Bridges
- Marine
- Municipal building
- Fascias
- A component of INFINITANK
- Stadiums
- Sports complexes
- Museums
- Schools
- High visibility areas

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10/NACE 2

System Tested*:

Primer: Macropoxy 646 @ 6.0 mils (150 microns) dft

Finish: FluoroKem HS @ 2.5 mils (63 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	2,655 psi
Direct Impact Resistance (topcoat only)	ASTM G14	80 in. lbs.
Dry Heat Resistance	ASTM D2485	200°F (93°C)
Flexibility (topcoat only)	ASTM D522, 180° bend, 1/8" mandrel	Passes
Pencil Hardness (topcoat only)	ASTM D3363	HB



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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
Recommended Primers:			
Steel:			
1 ct.	Duraplate 235	4.0-8.0	(100-200)
or			
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
or			
1 ct.	Epoxy Mastic Aluminum II	4.0-6.0	(100-150)
1 -2 cts.	FluoroKem HS	2.0 -3.0	(50-75)
Concrete/Masonry-smooth:			
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
1- 2 cts.	FluoroKem HS	2.0-3.0	(50-75)
Steel Tank Exteriors-AWWA D102 OCS No. 4			
1 ct.	Corothane I- Galvapac	2.0	(50)
1 ct.	Acrolon 218 HS	3.0	(75)
1 ct.	FluoroKem HS	2.0	(50)

The systems listed above are representative of the product's use, other systems may be appropriate.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

- *Iron & Steel: SSPC-SP6/NACE 3
- *Concrete & Masonry: SSPC-SP13/NACE 6 or ICRI No. 310.2R, CSP 1-3
- *Prime with recommended primers as needed.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	R St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted	D St 3	SP 3	-

TINTING

Do not tint.

Color: Wide range of colors available

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (Air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:

Part A: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Part B: Quart (0.94L) and 1 gallon (3.78L) containers
Premeasured components.

Weight (varies by color): 9.7-12.9 ± 0.2 lb/gal ; 1.16-1.55 Kg/L

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.



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APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (1-2 mils / 25-50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs. Primer Required.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:

- ASTM D4258 Standard Practice for Cleaning Concrete.
- ASTM D4259 Standard Practice for Abrading Concrete.
- ASTM D4260 Standard Practice for Etching Concrete.
- ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
- SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
- ICRI No. 310.2R Concrete Surface Preparation.

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	C St 3	C St 3	SP 3	-
Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:	40°F (4.5°C) minimum, 120°F (49°C) maximum (Air, surface, and material) At least 5°F (2.8°C) above dew point
Relative humidity:	85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer:	R7K111, as needed up to 5%
Clean Up:	R7K15

Conventional Spray

Gun.....	Model 95 Binks
Tip.....	67
Needle.....	667
Air Cap.....	67PB
Atomization Pressure.....	45 – 55 psi
Fluid Pressure.....	15 - 20 psi

HVLP (Spray Pot)

Gun.....	Binks Mach 1 SL
Tip.....	92
Needle.....	ABSS
Air Cap.....	95 AP
Atomization Pressure.....	50 psi
Fluid Pressure.....	20 psi

Air Assisted Airless

Pump.....	Graco 30:1 President
Gun.....	Graco Air-Assisted Gun
Tip.....	411
Atomization Pressure.....	30 psi
Fluid Pressure.....	60 psi

Airless Spray

Pressure.....	1500 – 2200 psi
Hose.....	¼ in D
Tip.....	013 " - .015"
Filter.....	60 mesh

Brush

Brush.....	Natural Bristle
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Roller

Cover.....	3/8" woven with solvent resistant core
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If specific application equipment is not listed above, equivalent equipment may be substituted.



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with slow speed power agitation for 2-3 minutes.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.5 (90)	5.0 (125)
Dry mils (microns)	2.0 (50)	3.0 (75)
~Coverage sq ft/gal (m ² /L)	321 (7.9)	481 (11.8)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	960 (23.5)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 5.0 mils wet (125 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	4 hours	2 hours
To recoat:			
minimum:	24 hours	4 hours	2 hours
maximum:	45 days	45 days	45 days
Pot Life:	4 hours	2 hours	30 minutes
Sweat-in-Time:	None required		

*If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.*

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with R7K15. Clean tools immediately after use with R7K15. Follow manufacturer's safety recommendations when using solvent.

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PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, over thinning, climate conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended down time with R7K15.

Drying time is temperature, humidity, and film thickness dependent.

Always test adhesion by applying a test patch of 2-3 square feet. Allow to dry one week before checking adhesion.

This product is moisture sensitive. Avoid moisture contamination

Temperatures above 77°F (25°C) will shorten pot life.

Refer to Product Information sheet for additional performance characteristics and properties.

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