

Specification 2.1.C.1

Pit Filling

Tnemec



SURFACING EPOXY SERIES 215

PRODUCT PROFILE

GENERIC DESCRIPTION	Modified Polyamine Epoxy
COMMON USAGE	An advanced generation, 100% solids epoxy filler and surfacer for concrete or steel. Excellent material for surfacing, patching and filling voids and bugholes in concrete substrates. Generally topcoated with a variety of high performance epoxies and polyurethanes for use in mild to aggressive exposures.
COLORS	1200 White, 1212 Gray
FINISH	Semi-Gloss
SPECIAL QUALIFICATIONS	Certified by NSF International in accordance with NSF/ANSI Std. 61 . Ambient air cured Series 215 is qualified for use on the interior of potable water storage tanks and reservoirs of 200 gallons (757 L) capacity or greater at 80 mils DFT or 95 mils DFT with fiberglass mat (Fiberglass Mat Product No. S211-0215). Return to immersion time is seven days. Contact your Tnemec representative for approved systems and additional information on potential uses.

COATING SYSTEM

SURFACER/FILLER/PATCHER	Self-patching or Series 217, 218
PRIMERS	Steel: Self-priming, Series 1, 20, FC20, 22, 27WB, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, H90-97, 90G-1K97, 91-H ₂ O, H91-H ₂ O, 94-H ₂ O, L140, L140F, N140, N140F, V140, V140F, 161, 201, 394 Concrete: Self-priming, Series 20, FC20, 22, 27WB, 66, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140, V140F, 161, 201. Note: Primers may be necessary on some applications to minimize or eliminate the potential for outgassing. Note: For potable water mat lay-up system, use fiberglass mat product number S211-0215. For filtration membrane mat lay-up system, please reference the Series 215ML product data sheet. CMU & Cement Board: Self-priming. Can also be used as a bedding coat for Series 273 Stranlok ML system, use fiberglass mat product number S273-0273C.
TOPCOATS	Series 20, FC20, 22, FC22, 27WB, 61, 66, L69, L69F, N69, N69F, V69, V69F, 84, 104, 113, 114, 120-5002, L140, L140F, N140, N140F, V140, V140F, 141, 161, 201, 210, 237SC, 239SC, 251SC, 262, 264, 270, 273, 280, 281, 282, 287, 406, 431, 434, 435, 436, 446. Note: Maximum recoat time for Series 406 is 72 hours.

SURFACE PREPARATION

STEEL	Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum 3.0 mil angular anchor profile. Immersion Service: SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum 3.0 mil angular anchor profile.
CONCRETE	Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness and prepare concrete surfaces in accordance with NACE 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Moisture vapor transmission should not exceed three lbs per 1,000 sq ft in a 24 hour period (reference ASTM F 1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride"). Relative humidity should not exceed 80% (reference ASTM F 2170 "Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes"). Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.
CMU	Allow mortar to cure for 14 days. Level protrusions and mortar spatter.
ALL SURFACES	Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS	100% (mixed) †
RECOMMENDED DFT	Resurfacer: 1/32" to 1/8" (0.8 mm to 3.2 mm) Up to 2" with the addition of Series 211 (see Mixing instructions) for filling honeycombs, blow holes and surface imperfections found in formed concrete surfaces. Larger imperfections may require multiple applications. Bedding coat for mat lay up is typically in the 1/16" range.

CURING TIME

Temperature	To Touch	Dry Through	Maximum to Recoat ‡
95°F (35°C)	4 hours	12 hours	14 days
75°F (24°C)	10 hours	24 hours	21 days
55°F (13°C)	18 hours	48 hours	21 days
45°F (7°C)	24 hours	72 hours	21 days
35°F (2°C)	32 hours	96 hours	21 days

‡ **Note:** If the Series 215 surface is exterior exposed for more than seven days, scarification is required before topcoating.
Note: Use "To Touch" cure information for minimum recoat times if succeeding topcoats are spray-applied and "Dry Through" if succeeding topcoats are applied by roller, brush, or trowel.

VOLATILE ORGANIC COMPOUNDS	Unthinned: 0.08 lbs/gal solids (10 grams/litre) †
HAPS	Unthinned: 0.0 lbs/gal solids
THEORETICAL COVERAGE	1,604 mil sq ft/gal (39.4 m ² /L at 25 microns). See APPLICATION for coverage rates. †
NUMBER OF COMPONENTS	Two: Part A and Part B (1 Part A to 1 Part B by volume)

SURFACING EPOXY | SERIES 215

PACKAGING

	PART A	PART B	When Mixed
Large Kit	3 gal. pail (partial fill)	5 gal. pail (partial fill)	4 gallons (15L)
Small Kit	1 gallon can	3 gal. pail (partial fill)	2 gallons (7.5L)
Touch-Up Kit	1 quart can	1 quart can	1/2 gallon (1.89L)

NET WEIGHT PER GALLON

13.28 ± 0.25 lbs (6.02 ± .11 kg) (mixed) †

STORAGE TEMPERATURE

Minimum 20°F (-6°C) Maximum 110°F (43°C)

Prior to application, the material temperature should be between 70°F and 80°F (21°C and 27°C). It is suggested the material be stored at these temperatures at least 48 hours prior to use.

TEMPERATURE RESISTANCE

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE

12 months at recommended storage temperature.

FLASH POINT - SETA

Part A and Part B: N/A

HEALTH & SAFETY

This product contains chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.

Keep out of the reach of children.

APPLICATION

COVERAGE RATES

†

Thickness	Large Kit	Small Kit
1/32" (31 mils)	207 sq ft (19.2 m²)	103 sq ft (9.6 m²)
1/16" (62 mils)	103 sq ft (9.6 m²)	52 sq ft (4.8 m²)
1/8" (125 mils)	51 sq ft (4.8 m²)	26 sq ft (2.4 m²)
1/2" (500 mils)	13 sq ft (1.2 m²)	6 sq ft (0.6 m²)

MIXING

Mix the entire contents of Part A and Part B separately. Scrape all of the Part A material from the pail and into the Part B container by using a flexible spatula. Use a variable speed drill with a PS Jiffy blade and mix the blended components for a minimum of two minutes. Apply the mixed material within the pot life limits after agitation. **Note:** Tnemec Series 211-0211 fumed silica may be added at 0.75:1 by volume per mixed gallon where a thicker consistency is required to achieve the desired application and film build properties. Mix with Part A as directed in Mixing Instructions. Multiple lifts may be required. A large volume of material will gel quickly if not applied or reduced in volume.

Caution: Do not reseat mixed material. An explosion hazard may be created.

THINNING

Normally not required.

POT LIFE

45 minutes at 70°F (21°C) – 25 minutes at 90°F (32°C)

Material temperatures above 90°F (32°C) will significantly reduce the pot life.

APPLICATION EQUIPMENT

Mortar hawk, trowels, broad knives and rubber floats are recommended. Series 215 can also be spray transferred using spray texture gun equipment.

Spray Application Equipment

Pump	Fluid Line	Spray Gun	Fluid Tips	Fluid Pressure	Atomizing Pressure	Hopper
WTWA 410 9:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	WTWA Pole Gun	1/4" to 3/8"	180 to 360 psi (Adjust as necessary)	Adjust at gun for proper atomization	6.5 Gallons Stainless Steel
Graco 45:1, 56:1, X50, X60	3/8" to 1/2" I.D.	XTR-7	0.031"-0.041"	3500-4500 psi	N/A	6.5 Gallons Stainless Steel
Graco M680 10:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	Flex Hose	No. 5 Nozzle	200 psi (Adjust as necessary)	Adjust at gun for proper atomization	10 Gallons Stainless Steel
Graco M680 10:1 Ratio	25' 1" Diameter 10' 3/4" Diameter	HTX	4C Fine Finish	250 psi (Adjust as necessary)	Adjust at gun for proper atomization	10 Gallons Stainless Steel

Cart mounted 9:1 ratio, air operated pump with air filter, regulator and lubricator, air control manifold, fluid outlet drain with drain valve and control air hose assembly. Refer to the operation manual for application instructions. Air requirements 80 CFM at 100 psi. **Atomization air must be dry, the use of an after cooler is recommended.**

SURFACE TEMPERATURE

Minimum 35°F (2°C), maximum 130°F (54°C). The surface temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. To minimize outgassing, concrete temperature should be stabilized or in a descending temperature mode and the concrete primed with a suitable epoxy primer.

MATERIAL TEMPERATURE

Prior to application, the material temperature should be between 70°F and 80°F (21°C and 27°C). It is suggested the material be stored at these temperatures at least 48 hours prior to use. Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

CLEANUP

Flush and clean all equipment immediately after use with xylene, MEK, or when required by SCAQMD regulations, No. 74 Thinner.

† Values may vary with color.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

Specification 2.1.C.1

Pit Filling

Sherwin Williams



Protective & Marine Coatings

STEEL-SEAM FT910 EPOXY PATCHING AND SURFACING COMPOUND

PART A
PART B

B58W910
B58V910

RESIN (WHITE)
HARDENER (BLACK)

Revised March 20, 2015

PRODUCT INFORMATION

TRM.67

PRODUCT DESCRIPTION

STEEL-SEAM FT910 EPOXY PATCHING AND SURFACING COMPOUND is a 100% solids epoxy surfacing compound for steel or patching compound for concrete. It is formulated for ease of application with squeegee, trowel, or airless spray on horizontal, vertical or overhead applications. Cures down to 35°F/1.7°C.

- 100% solids
- Tolerates moisture during cure
- Outstanding workability
- Easy to use
- May be applied from 5 mils to 1/2" wft/dft vertically
- May be applied up to 1" thick with aggregate addition
- Cured down to 35°F/1.7°C

PRODUCT CHARACTERISTICS

Color: Gray

Volume Solids: 100%, mixed

VOC (calculated): <100 g/l; 1.67 lb/gal, mixed

Mix Ratio: 3:1 by weight (premeasured kits)

Recommended Spreading Rate:

Coverage: 1" cove ~ 38 lf/gal
3" cove ~ 10 lf/gal
1 mil wft/dft ~ 1604 sf/gal

Drying Schedule @ 40.0 mils wet (1000 microns):

@ 35°F/1.7°C @ 73°F/23°C

To touch: 6 hours 4 hours

To recoat:

minimum: 12 hours 6 hours

maximum: 4 days 2 days

To cure: 7 days 7 days

If maximum recoat time is exceeded, abrade surface before recoating. Maximum recoat time is shorter when using polyurea topcoat, refer to topcoat data page.

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

Pot Life*: 50 minutes 30 minutes

*@ 90°F/32°C, Pot Life is 20 minutes

Sweat-in-Time: None

Shelf Life: 36 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C)

Reduction: Not recommended

Clean Up: Reducer R7K54

RECOMMENDED USES

May be used as a versatile filler/surfacer for uneven surfaces found in formed, open or corroded concrete and masonry surfaces. May also be used as a fairing compound for weld seams, riveted connections, lap seams and chine angels in steel tanks prior to epoxy coating and lining applications.

Concrete Uses:

- To smooth rough concrete
- To fill bugholes, tie rod holes, cavities, honeycombs and other surface defects on horizontal, vertical, or overhead surfaces
- To form transition coves at vertical and horizontal coves

Steel Uses:

- To smooth riveted, lapped or welded seams
- To fill corrosion pits on steel surfaces
- To form chine coves and fill sharp angles

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060	69 mg lost
Adhesion	Concrete, ASTM D4541; Steel, ASTM D1002	350 psi, 100% concrete failure (ASTM D4541); 1,400 psi (ASTM D1002)
Elongation	ASTM D412	17.9%
Flammability	ASTM D635	Self-extinguishing
Hardness, Shore D	ASTM D2240	55-60
Tensile Strength	ASTM D412	2,672 psi
Thermal Cycling	ASTM C884, 5 cycles	No cracking



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PRODUCT INFORMATION

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RECOMMENDED SYSTEMS

May be applied directly to prepared concrete or steel.

May be applied over 100% solids primers to include:

- Cor-Cote HCR
- Corobond 100
- Dura-Plate UHS Primer
- Macropoxy 920 PrePrime
- Corobond LT
- EnviroLastic LT

May be topcoated with a variety of coatings to include:

- Acrolon 218 HS
- Cor-Cote HCR, HCR FF
- Cor-Cote E.N. 7000
- Cor-Cote HP, HP FF
- Cor-Cote SC-Sewer-Cote
- Dura-Plate 235
- Dura-Plate UHS Laminate
- Dura-Plate UHS Epoxy
- EnviroLastic Polyurea
- Macropoxy 646 Epoxy
- Phenicon HS Epoxy
- SherFlex
- ExpressCote HCR

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 SP-10/NACE2, 3 mils

(75 microns) profile

Concrete: SSPC-SP13/NACE 6, or ICRI
No. 310.2R, CSP 4-6

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	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:

Air and Surface: 35°F (1.7°C) minimum, 120°F (49°C)
maximum

Material: 50°F (10°C) minimum, 95°F (35°C)
maximum

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: 13.2 lb / 1.6 Kg
(~1.5 gal / 5.6L) in a 3 gallon (11.3L) pail

Part B: 4.4 lb / 0.53 Kg
(~.5 gal / 1.9L) in a 1 gallon (3.78L) pail

Weight per mixed unit: 17.5 lbs. ; 2.1 Kg
(462 cu. in.)

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

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Revised March 20, 2015

APPLICATION BULLETIN

TRM.67

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 (immersion service)

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (3 mils / 75 microns). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (atmospheric service)

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

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 4-6. 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.

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.

Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-3.

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 & Rusty	D St 2	D St 2	SP 2	-
Rusty	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusty	D St 3	D St 3	SP 3

APPLICATION CONDITIONS

Temperature:

Air and Surface: 35°F (1.7°C) minimum, 120°F (49°C) maximum

Material: 50°F (10°C) minimum, 95°F (35°C) maximum

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.

ReductionNot recommended

CleanupReducer R7K54

Squeegee:

Squeegee.....Flat

Trowel:

TrowelFlat blade

For applications over severely damaged or eroded concrete, use a rubber faced grout float trowel.

Putty KnifeAcceptable

Airless Spray

Pump45:1 (minimum) with gravity feed
hopper connected to a high volume
lower unit (minimum 220 cc/cycle)

Pressure2400-3000 psi

Hose3/8" ID, with 1/4" whip hose
acceptable

Tip......019 - .031

Gun.....Graco Silver Plus, XTR, or Pistol
Grip Mastic

Filter(s)remove

Reductionnot recommended

Have material agitated with lids open to ensure rapid mixing. Multiple passes will allow film thickness up to 250 mils. An orange peel appearance is normal. If a smoother finished is desired, 1-2 hours after application use a 1/8" nap roller dampened with R7K54 to smooth the surface. Use a large spatula to continually wipe the material down into the hopper.

If specific application equipment is not listed above, equivalent equipment may be substituted.



Protective & Marine Coatings

STEEL-SEAM FT910 EPOXY PATCHING AND SURFACING COMPOUND

PART A
PART B

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HARDENER (BLACK)

Revised March 20, 2015

APPLICATION BULLETIN

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Stir each component with low speed power agitation prior to mixing. Mix 3 parts Part A (white) to 1 part Part B (black) by weight (premeasured components). Mix with low speed drill and Jiffy Mixer for approximately three minutes until uniform gray with no white or black streaks.

Temperature:

Do not apply product when ambient or surface temperatures are below 35°F (1.7°C). Surface temperature must be at least 5°F (2.8°C) above dew point.

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

Recommended Spreading Rate:

Coverage:	1" cove ~ 38 lf/gal
	3" cove ~ 10 lf/gal
	1 mil wft/dft ~ 1604 sf/gal

Drying Schedule @ 40.0 mils wet (1000 microns):

	@ 35°F/1.7°C	@ 73°F/23°C 50% RH
To touch:	6 hours	4 hours
To recoat:		
minimum:	12 hours	6 hours
maximum:	4 days	2 days
To cure:	7 days	7 days

If maximum recoat time is exceeded, abrade surface before recoating. Maximum recoat time is shorter when using polyurea topcoat, refer to topcoat data page.

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

Pot Life*: 50 minutes 30 minutes

*@ 90°F/32°C, Pot Life is 20 minutes

Sweat-in-Time: None

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 Reducer R7K54. Clean tools immediately after use with Reducer R7K54. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

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, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

Check surfaces of primer, FT910, and subsequent coats for amine blush (oily film). If detected, remove before applying the next layer or coat.

For filling larger defects in concrete, one to four quarts of 30 to 100 mesh aggregate may be added per gallon of mixed FT910, depending on the size of hole and slump required.

Ambient air cured FT910 is acceptable for use on interior of potable water storage tanks and reservoirs when overcoated with an ANSI / NSF Std. 61 certified Sherwin-Williams coating.

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

SAFETY PRECAUTIONS

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WARRANTY

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Specification 2.1.C.2

Pit Filling

International

PRODUCT DESCRIPTION

A two component solvent free elastomeric urethane.

Polibrid 705E is fast setting and can be applied by heated, plural component airless spray to offer the ultimate protection in corrosive environments. Geotextile fabrics may be embedded within the coating to produce reinforced, bonded geomembrane linings.

Polibrid 705E repair kits are also available for hand patching relatively small areas of previously applied Polibrid 705E.

INTENDED USES

Polibrid 705E is an ultra high-build, flexible coating designed to protect concrete and steel in chemical, abrasion and high impact environments, ideal for encapsulation of rivets, bolts, edges and other surface imperfections.

The product is odourless with zero VOC thus eliminating the creation of pinholes due to solvent evaporation producing a dense, elastic membrane capable of withstanding shrinkage cracks in concrete.

Polibrid 705E can be applied as a lining for various chemicals, potable water and wastewater services or for secondary containment. These characteristics and ability to provide rapid return to service make it ideal for the Water & Waste Water, Mining & Minerals markets and a range of other industrial applications.

PRACTICAL INFORMATION FOR POLIBRID 705E

Colour	Buff
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	700-5000 microns (28-200 mils) dry equivalent to 700-5000 microns (28-200 mils) wet
Theoretical Coverage	0.50 m ² /litre at 2000 microns d.f.t and stated volume solids 20 sq.ft/US gallon at 80 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Plural Component Airless Spray

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
15°C (59°F)	2 hours	2 days	*	2 hours ¹
25°C (77°F)	1 hour	1 day	*	1 hour ¹
40°C (104°F)	40 minutes	1 day	*	40 minutes ¹

¹ The values quoted are those achieved when exposed to direct sunlight. In shaded or cloudy conditions, maximum recoat values are increased as follows ; 15°C (59°F) – 6 hours ; 25°C (77°F) – 4 hours ; 40°C (104°F) – 1 hour

REGULATORY DATA

Flash Point (Typical)	Part A 260°C (500°F); Part B 110°C (230°F); Mixed 110°C (230°F)		
Product Weight	1.14 kg/l (9.5 lb/gal)		
VOC	0.00 lb/gal (0 g/l)	EPA Method 24	

See Product Characteristics section for further details

Protective Coatings

**SURFACE
PREPARATION**

Please consult the Polibrid 705E Application Guidelines prior to commencing surface preparation.

Steel

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Polibrid 705E, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular profile of 90 microns (3.6 mils) is recommended as a minimum.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

Concrete

For applications over concrete substrates, the use of a geotextile fabric should always be considered. Please consult the Polibrid 705E Application Guidelines for further details of surface preparation and application.

APPLICATION

Mixing	This material is supplied in full containers for use with plural component airless spray equipment. Once mixed, Polibrid 705E must be used within the working pot life specified.		
	Thoroughly mix Part A with air-driven agitator for 30 minutes just prior to use. Part B requires no agitation before using.		
Mix Ratio	2 part(s) : 1 part(s) by volume		
Working Pot Life	15°C (59°F) 5 minutes	25°C (77°F) 3 minutes	40°C (104°F) 1 minute
Airless Spray	Recommended	Tip Range 0.63-0.89 mm (25-35 thou) Total output fluid pressure at spray tip not less than 211 kg/cm² (3000 p.s.i.)	
Air Spray (Pressure Pot)	Not recommended		
Brush	Suitable	Small areas and stripe coating only	
Roller	Not recommended		
Thinner	Not suitable	DO NOT THIN	
Cleaner	International GTA203 -	N.B Clean all equipment immediately after use.	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA203.		
Clean Up	Clean all equipment immediately after use with International GTA203. It is good working practice to periodically flush out spray equipment during the course of the working day. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		
	Note: After flushing equipment with GTA203 cleaner during clean up and work stoppages, it is recommended that a final purge is carried out with GTA004 to remove any moisture prior to storing the equipment.		

**PRODUCT
CHARACTERISTICS**

The detailed Polibrid 705E Application Guidelines should be consulted prior to use.

Only companies in receipt of Qualified Applicator status from International Protective Coatings shall be used for Polibrid 705E application. Companies shall document that they comply with this requirement prior to work commencement.

This datasheet provides general guidance on the use of Polibrid 705E. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

When applying to concrete substrates, application of Polibrid 705E should always be carried out during the cooling periods of the day.

This product will not cure adequately below -4°C (25°F) or at relative humidity above 95%. For maximum performance, ambient curing temperatures should be between 4°C and 49°C (40-120°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Polibrid 705E is sensitive to the presence of moisture and must not be applied to wet or damp substrates at any time.

Maximum continuous dry temperature resistance for Polibrid 705E is 82°C (180°F).

Maximum continuous immersed temperature resistance for Polibrid 705E is 49°C (120°F) for insulated tanks and vessels.

A minimum Shore D hardness reading of 60 is a recommended guideline to indicate suitability for return to service.

This product is not recommended for exposure to concentrated acids, aromatic hydrocarbons, ketones or chlorinated solvents.

Due to its aromatic composition, Polibrid 705E will tend to yellow or darken in colour after exposure to UV light.

This product has the following specification approvals:
Certified to AS/NZS 4020:2005 for tanks less than 1000 mm²/litre.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

**SYSTEMS
COMPATIBILITY**

Polibrid 705E should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

**ADDITIONAL
INFORMATION**

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Polibrid 705E Application Guidelines

Individual copies of these information sections are available upon request.

**SAFETY
PRECAUTIONS**

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	203 litre	200 litre	200 litre	200 litre	200 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)					
* Consult International Protective Coatings for advice					
STORAGE	Shelf Life	24 months (Part A) & 12 months (Part B) minimum at 25°C (77°F) Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			
		For maximum shelf life, it is recommended that Part B is stored at temperatures between 25°C (77°F) and 40°C (104°F). Absolute minimum storage temperature is 15°C (59°F).			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

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