

PRODUCT DESCRIPTION

Powerflex 550 is a high performance polyurethane-polyurea based elastomeric coating specially designed to provide superior abrasion, chemical and water resistance performance by regular methods of application.

PRODUCT FEATURES

- Excellent chemical resistance
- High film build in one coat
- Can be used as full coating or as a repair kit
- Applied by brush, roller, squeegee and spray by conventional or plural-component spraying equipment Graco XM Series
- Exceptional hardness and toughness
- Excellent hydrophobic & water proofing performance
- Cold weather cure for temperatures own to -4°F (-25°C)
- Excellent wear/abrasion resistance

RECOMMENDED USES

- Protection on steel and concrete surfaces from occasional splashing of chemicals.
- Interior lining of tanks and pipes.
- Chemical resistant flooring
- Protection of mining equipment from abrasion wear and chemicals.

TECHNICAL DATA

Colors:	Available in many colors	Drying times (20°C) based on 20 mils (0.5 mm) DFT	
Gloss:	Semi-gloss to Satin	Tack free :	1 hour
Solids by volume:	76 – 80 %	To recoat:	3-4 hours
Solids by Weight:	82 - 86 %	Hard	5 - 6 hours
Theoretical Coverage of 1 mil:	1237 ft ² / U.S. gallon	Pot Life	20 - 30 minutes without dilution 30-40 minutes with 20% dilution
D.F.T. at 25 microns:	115 m ² / 3.78 liters	Reduction solvent (if necessary):	300
Recommended WFT:	17 – 35 mils depends on the application	Dilution:	20 % by volume
Dry film thickness:	13 -28 mils depends on the application	(if necessary)	
Kit Viscosity:	80-100 ku	Catalyst:	550C
Kit Specific gravity:	1.2 - 1.45 kg/l	Mixing Ratio:	1:1 by volume
Flash Point:	24°C (75.2°F)	Shelf life:	24 months @ 25° C unopened
V.O.C.:	250 grams/liter 2.08 lbs / US gal	Packaging Base:	3.78L (1 U.S. gallon) in 11.34L
Shelf life:	24 months @ 25°C (77°F) unopened	Catalyst:	3.78L (1 US gallon)
		*Data may vary for different colors	Keep in cool dry area

APPLICATION GUIDE
SURFACE PREPARATION

SURFACE PREPARATION:
 Remove all detrimental foreign matter such as oil, grease, dirt, soil, salts, drawing and cutting compounds and other contaminants from surfaces.

Use one of the following recommendations:

1. Prepare surface in accordance with SSPC –SP – 1 (solvent cleaning)
 2. Prepare surface in accordance with SSPC –SP – 5 (white metal blast cleaning) for immersion
 3. Prepare surface in accordance with SSPC –SP – 6 (commercial blast cleaning) for better chemical resistance
- Apply Powerflex Moisture-Cure primer (guard) or Epoxy primer Powercoat Epoxy primer (448 [448102] or 100S) with 4 mils DFT (100 microns) before application of Powerflex 550. (Refer to correspondent Technical Data Sheet for product information)

MIXING AND THINNING

First, power mix the base portion Powerflex 550 until it becomes homogenous. Secondly, add catalyst 550C slowly with contained agitation until the both base & catalyst parts are well mixed together. Then product is ready for immediate use.

Dilution when applied by:

Air spray and airless spray: 20% dilution (by volume) with 300 if necessary.

Brush and roller or squeegee or special plural spraying equipment XM Series: No dilution is required.

APPLICATION PROCESS

Substrate temperature	Dust free	Hard	RECOATING TIME**		
			Minimum	Maximum	Normal
20°C (68°F)	1 hours	5 - 6 hours	4 hours	30 days	12 hours - 14 days
4°C (39°F)	2 – 2.5 hours	10 - 12 hours	8 hours	60 days	24 hours - 40 days
-10°C (14°F)	18 – 20 hours	40 - 48 hours	18 hours	90 days	48 hours - 60 days
CONVENTIONAL SPRAY					
Manual Spray gun:	DeVilbiss JGA-510, MBC-510 or equivalent		Air Cap:	45 – 75 lbs.	Hose:
Fluid Nozzle:	E Fluid Tip		Atomizing Air:	15 – 20 lbs.	1/2 inch, 50 ft. length maximum

** After 30 days light sanding is required

Application by spray, brush, roller (synthetic roller with 1/4 - 1/2 inch nap) or squeegee. Always smooth applied surface with roller 5 minutes after application by squeegee.

Recommended coating systems:

Epoxy primer Powercoat 100/448 (448102) 4 mils D.F.T. (100 microns) Powerflex 550 17-35 mils D.F.T.

PHYSICAL PROPERTIES

Properties under tension:

Resistance to tearing:

(ASTM D 624-C) Tensile = 35.7 Mpa

Indication of hardness:

(ASTM D 2240) 65 Shore A

Impact:

(ASTM D 2794) 52 inch/lb.

Taber abrasion resistance:

(ASTM D 4060) 1000 cycles, 1000g load, CS-17 wheel: 38 mg loss
H-18 wheel 550 mg loss

Adhesion:

(ASTM D4541) on Moisture cure- or Epoxy Primer 448102 = 850 psi (5.5 MPa) minimum

SPECIAL INSTRUCTIONS

- Thinner can be added depending on local VOC and air quality regulations

- Surface temperature must be at 3°C (5°F) above the dew point during application

See the material safety data sheet and product label for complete safety and precaution requirements.

DISCLAIMER:

“The following is made in lieu of all warranties, expressed or implied: Manufacturer’s obligation shall be to replace such quantity of the product proven to be defective. The manufacturer shall not be liable for any injury, loss or damage, direct or incidental or consequential, arising out of the use of or the inability to use the product. Before using, the user shall determine the suitability of the product for the intended use and the user assumes all risk and liability whatsoever in connection therewith. All values shown are approximations. Values indicated are for guide purposes only, as actual values can change due to application conditions, application methods, environmental conditions etc. The information contained herein is subject to change without notice. Consult your representative for a current data sheet. The foregoing may not be altered except by an agreement signed by the officers of the manufacturer.”