Polyflex 54
polyurea

Product Description

Wasser Polyflex 54 is a high performance polyurethane-polyurea iron oxide based elastomeric coating specially designed to provide a superior anti-corrosion performance by regular methods of application.

Product Features

- Excellent anti-corrosion & hydro insulation characteristics
- High film build in one coat
- Applied by brush, roller, squeegee and spray by conventional or plural-component spraying equipment such Graco XM Series
- Excellent hydrophobic & water proofing performance
- Cold weather cures for temperatures down to 15°F (-10°C).
- Good abrasion and chemical resistance
- Outstanding hardness

Ready Reference Information

Color: Any color
Gloss: Satin
*Solids by volume: 84 - 86%
*Solids by weight: 89 - 91%
V.O.C.: 2.08lbs/gal (250 g/l)

Recommended dry film thickness/coat: 20 - 30 mils depend on the application
Recommended wet film thickness: 25 - 35 mils depend on the application
Theoretical Coverage:
At 1 mil: 1345 ft²/gal (25µm: 33.07m²/l)
Reduction solvent (if necessary): W41.0
Dilution (if necessary): 20% by volume
*Kit Viscosity: 80 - 100 ku
*Kit Specific gravity: 1.2 - 1.45 kg/l
Ratio: 1:1 by volume, Catalyst WP54A.0
Pot Life: 20 - 30 minutes without dilution
40 minutes with 20% dilution

Recommended coating systems:

Steel Substrate
1st coat (optional)/MC-Miozinc 100: 3-5 mils DFT (76-127µm DFT)
or MC-Universal 100: 4-5.5 mils DFT (100-139µm DFT)
2nd coat / Polyflex 54: 10-15 mils DFT (254-381µm DFT)
3rd coat / Polyflex 54: 10-15 mils DFT (254-381µm DFT)

Concrete Substrate
1st coat / MC-Universal 100: 4-5.5 mils DFT (100-139µm DFT)
or Polyflex 111: 8-10 mils DFT (203-254µm DFT)
2nd coat / Polyflex 54: 10-15 mils DFT (254-381µm DFT)
3rd coat / Polyflex 54: 10-15 mils DFT (254-381µm DFT)

**Abrade slightly after recoat has lapsed, or Polyflex solvent surface activator WP50.0 should be used.

**RE-COATING TIME

<table>
<thead>
<tr>
<th>Substrate Temp</th>
<th>Dust Free</th>
<th>Hard Dry</th>
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</thead>
<tbody>
<tr>
<td>84 - 95°F (29 - 35°C)</td>
<td>1.5-3 hours</td>
<td>6-7 hours</td>
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<tr>
<td>61 - 83°F (16 - 28°C)</td>
<td>3-5 hours</td>
<td>23-26 hours</td>
</tr>
<tr>
<td>41 - 60°F (5 -15°C)</td>
<td>18-20 hours</td>
<td>40-48 hours</td>
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Area of Use

Substrates
- Steel
- Concrete

Possible Uses
- Long term protection of steel and concrete surfaces against corrosion
- Effective anti-corrosion protection on exterior parts of pipes and tanks
Surface Preparation

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

General use: If applied by squeegees, the dilution is not required, for application with a spray equipment, could be diluted with 20% W41.0.

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 Wasser Moisture cure primer (MC-Universal 100) before application of Polyflex 54 (Refer to correspondent TDS for that products)

Application Information

Application by spray, brush, roller (synthetic roller with ¼-½ inch nap) or squeegee. Smooth applied surface with roller 5 minutes after application by squeegee.

Mixing and Thinning

First, power mix the base portion Polyflex 54 until it becomes homogeneous. Secondly, add catalyst 54C slowly with continued 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 solvent W41.0 if necessary

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

Performance Testing Data

Properties under tension:
(ASTM D 412-C) Ultimate Elongation = 90% Tensile Strength = 1088 PSI (7.5N/mm²)

Adhesion by pull-off strength:
(ASTM D 4541) MC-Universal 100 = 800 PSI (5.5 N/mm²)

Hardness:
(ASTM D 2240) 80 Shore A

Taber abrasion resistance:
(ASTM D-4060) 1000 cycles, 1000g load 120 mg (CS-17 wheel)

Impact resistance:
(ASTM D 2794) Direct @ 77°F (25°C): 140 in-lb (15.8 joules)
Indirect @ 77°F (25°C): 120 in-lb (13.6 joules)

Special instructions
- Thinner can be added depending on local voc and air quality regulations
- Surface temperature must be at 5°F (3°C) above the dew point during application

Ordering Information

Product Numbers:
WP54A.0 (catalyst)
WP54B.0 (resin)

Package Size:
Base 1 gal. (3.78l)
Catalyst 1 gal. (3.78l)

Shelf Life:
2 years, @ 77°F (25°C) unopened

Safety Precautions

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

“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 guidance 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.” Contact your Wasser Representative for current Product Data Sheets.