MPC Flexclad™ 65

Polyurethane Coating & Lining System
Rapid Cure - Aromatic

Description
Epoxytec MPC Flexclad™ 65 is 100% solid aromatic polyurethane protective coating and liner. A two-component, ultra high build, rapid cure, abrasion resistant coating suitable for buried or immersive service.

MPC Flexclad™ 65 provides a very tough, flexible, chemically resistant, impermeable barrier. Tensile elongation of 300%, a Shore D of 65 and tensile strength of 3240 psi. Excellent acid and alkaline resistance.

Typical Uses
MPC Flexclad™ 65 has been proven in many aggressive enclosed, immersive, and partially opened environments. MPC Flexclad™ 65 performs in areas subject to chemical attack. Ideally suited as a protective coating/lining solution for:

- Industrial lining of tanks and vessels for high abrasion, impact, chemical and flexural needs
- Joint sealing
- Seamless and sealed coating & lining
- Protection against corrosion for steel and other substrates

Features

- 100% solids, no VOCs
- Excellent chemical resistance
- Excellent abrasion resistance
- Ultra-high build
- Flexible (300% tensile elongation)
- High impact strength
- Cold temperature performance
- U.V. tolerant
- High gloss finish
- Rapid curing (with 30 second gel time)
- 1:1 mix ratio
- Spray applied (including disposable cartridges)

Film Thickness
MPC Flexclad™ 65 can be a single coat or multiple coat system.
MPC Flexclad™ 65 can be applied onto a surface at 60 mils (minimum) to 350 mils (maximum) per coat. For a total coating thickness exceeding 350 mils, multiple coats are necessary.

Note: MPC Flexclad™ 65 has a short recoat window. To apply multiple coats, prepare accordingly.

Theoretical Coverage
MPC Flexclad™ 65 is a 100% solid coating that will not shrink.

Therefore, the theoretical coverage properties between wet film thickness (WFT) and dry film thickness (DFT) are the same. Twenty-six (26) square feet (sq.ft.) per gallon (gal.) at 60 mils thick. Actual coverage will depend on surface conditions, irregularities, and surface profile.

Surface Preparation
The success of any coating application is directly proportional to the completeness of the substrate preparation and the care the application crew puts into the application. Surface must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, impregnation, waxes, foreign particles, and disintegrated materials from the surface, in order to achieve a clean and profiled surface.

Concrete: Concrete must be sealed with a high density mortar, Epoxytec Mortartec Silicate, and primed prior to starting. An ICRI profile of CSP 5 of higher is required of the mortar. Full cure of the mortar is required. Prepare concrete in accordance with SSPC-SP 13/NACE No. 6. “Surface Preparation of Concrete.” Priming, with Epoxytec B1 Primecoat is required (2 coats, and fully cured prior to commencing).
MPC Flexclad™ 65

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Steel: Before preparing steel, please inspect and remove oil, grease, or other contaminants - “Solvent Cleaning” (SSPC-SP1) may be required. Remove all sharp peaks, including weld spatter. Abrasive blasting (or other approved mechanical methods) must be used in order to achieve a clean surface with a minimum profile of 4 mils. Stripe coat all edges and peaks with an Epoxytec recommended primer. Prime with Epoxytec A1 Primecoat.

Wood: Remove all grease, oil, dirt or other foreign matter by solvent or detergent washing. Prepare wood surface by abrasive sanding and washing (allow to dry and prime using an Epoxytec B1 Primecoat).

Application Method

Epoxytec MPC Flexclad™ 65 must be applied by plural component airless-air-assisted airless spray equipment <or> the Epoxytec EZ-Spray System (disposable cartridge spraying).

If using compressed air for spraying, use an air filter and dryer.

For optimum properties, maintain product in heated storage between 70ºF and 80ºF. Dew and rain on MPC Flexclad™ 65 while uncured may impair its cure and adhesion of subsequent coats.

If you are going to be spraying small, intricately shaped parts, or fusing large surfaces of thick layers of elastomer, you must select a high pressure metering machine and spray gun, or a high-output, low pressure metering machine that can spray a rate of 7-10 lbs. per minute, and spray gun equipped with either a dynamic or static tip. When applying with high pressure airless equipment (2500-3000 psi), components should be heated to (160°F-170°F) to assure good mixing. A number of types and styles of spray gun/mixers can be successfully, including high pressure impingement guns. The selection of a spray tip is dependent on the nature and size of the object to be sprayed. The tips will have an effective fan width of 25 or 30 degrees, and an equivalent orifice size of between .026 inch to .053 inch. A general rule would be the smaller the surface to be sprayed the smaller the orifice. The use of the small tip size reduces the total throughput of elastomer. For example the use of a .026 inch orifice would result in an output of about 3 pounds per minute. The output using the .053 inch orifice will be circa 10 lbs/min.

Safety

Consult Material Safety Data Sheet (MSDS) for safety information.

Thinning

Epoxytec MPC Flexclad™ 65 cannot be thinned. DO NOT ATTEMPT.

Storage & Handling

- Shelf life: 6 months, sealed. Store in a dry area away from direct sunlight. The material should be conditioned to between 75º F and 90º F before use.

Packaging & Color

- 100 Gallon Kit (drums) Item# U65-D-8 (blue)  Item# U65-D-T (tan)
- 10 Gallon Kit (pails) Item# U65-G10-B (blue)  Item# U65-G10-T (tan)
- 4 Gallon Kit (pails) Item# U65-G4-B (blue)  Item# U65-G4-T (tan)
- 1,500mL Dual Cartridges (Box of 5) Item# U65-B1500-B (blue)  Item# U65-B1500-T (tan)
- 600mL Dual Cartridges (Box of 12) Item# U65-B600-B (blue)  Item# U65-B600-T (tan)

Technical Properties

<table>
<thead>
<tr>
<th>Finish</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix Ratio</td>
<td>1 to 1 (by volume)</td>
</tr>
<tr>
<td>Type</td>
<td>Polyurethane</td>
</tr>
<tr>
<td>Solids by Volume</td>
<td>ASTM D2697 100%</td>
</tr>
<tr>
<td>Solvent (VOC)</td>
<td>ASTM D3960 none</td>
</tr>
<tr>
<td>Flash Point</td>
<td>ASTM D3278 450F (A), 390F (B)</td>
</tr>
<tr>
<td>Pot Life</td>
<td>30 min. (25 C / 200 g mass)</td>
</tr>
<tr>
<td>Viscosity (A Component)</td>
<td>ASTM D2196 1,500 mPa @ 25 C</td>
</tr>
<tr>
<td>Viscosity (B Component)</td>
<td>ASTM D2196 2,500 mPa @ 25 C</td>
</tr>
<tr>
<td>Adhesion Strength</td>
<td>ASTM D4541 450 psi 700 psi (with primer)</td>
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<tr>
<td>Potable Drinking Water</td>
<td>ANSI/NSF-61 conforms</td>
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<tr>
<td>Tensile Strength</td>
<td>ASTM D638 3,240 psi</td>
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<tr>
<td>Hardness, Shore D</td>
<td>ASTM D2240 65</td>
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<tr>
<td>Tensile Elongation</td>
<td>ASTM D2370 400%</td>
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<tr>
<td>Abrasion Resistance</td>
<td>Taber (H-18) 190 mg</td>
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<tr>
<td>Initial Cure</td>
<td>30-60 seconds</td>
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<tr>
<td>Complete Cure</td>
<td>2 hours (25 C)</td>
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<tr>
<td>Temperature Exposure (dry)</td>
<td>0F - 250F</td>
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<tr>
<td>Temperature Exposure (wet)</td>
<td>0F - 200F</td>
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<tr>
<td>Recoat Time</td>
<td>0 hr. (25 C) – 8 hours</td>
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</tbody>
</table>

Chemical Resistance

Most industrial and water & wastewater producing chemicals, such as, but not limited to hydrogen sulfides, de-icing salt solutions, dilute, non-oxidizing acids, caustic solutions, aliphatic hydrocarbons, and mineral oils. Other: All types of weathering, ozone, UV radiation, and high energy radiation.

(contact Epoxytec for more specific chemicals)