VOLATILE ORGANIC COMPOUNDS

PRODUCT PROFILE

GENERIC DESCRIPTION
Modified Polycarbamide

COMMON USAGE
An advanced technology finish coat combining low VOC with exceptional performance. Offers superior color and gloss retention compared to traditional polyurethanes for long-term aesthetics on a wide range of exterior structures. Durable film stands up to abrasion and exterior weathering. Very good brush, roll and spray application characteristics. Direct-to-Metal capability allows for a labor-saving, high-build, single coat application. NOT FOR IMMERSION SERVICE.

COLORS
Refer to Tnemec Color Guide. Note: Certain colors may require multiple coats depending on method of application and finish coat color. When feasible, the preceding coat should be in the same color family (blue, gray, etc.), but noticeably different.

FINISH
Gloss

COATING SYSTEM

PRIMERS
Concrete: Series 1, 20HS, FC20HS, 27, 27WB, 66, 66HS, L69, L69F, N69, N69F, 161, 161HS, 1254

Note: Series 20HS, 66, 66HS, L69, N69, 135, L140, N140, or V140 exposed more than 21 days; Series FC20HS, 27, L69F, N69F, L140F, N140F, V140F, 161 or 161HS exposed more than 14 days; and Series 27WB, 73, or 1075 exposed more than 90 days must first be scarified or reprimed with themselves (or with an epoxy for 75 and 1075) prior to topcoating. Brush blasting with fine abrasive is the preferred method of scarification.

STEEL
SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 2.0 mils.

All Surfaces
Must be clean, dry and free of oil, grease and other contaminants when used as a topcoat. See primer product data sheet for surface preparation recommendation.

SURFACE PREPARATION

Basecoat
Must be clean, dry and free of oil, grease and other contaminants when used as a topcoat. See primer product data sheet for surface preparation recommendation.

TECHNICAL DATA

VOLUME SOLIDS
73.0 ± 2.0% (mixed) †

RECOMMENDED DFT
Topcoat Service: 2.5 to 6.0 mils (65 to 150 microns) per coat.
Direct-to-Metal Service: 6.0 to 8.0 mils (150 to 205 microns).

Note: Number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME
Curing time varies with surface temperature, air movement, humidity and film thickness. Note: For faster time-to-moisture resistance and low-temperature applications, add No. 44-712 Urethane Accelerator; see separate product data sheet.

Note:
- 6.0 to 8.0 mils (150 to 205 microns).
- 90 days must first be scarified or reprimed with themselves (or with an epoxy for 75 and 1075) prior to topcoating. Brush blasting with fine abrasive is the preferred method of scarification.

Note:
- When topcoating Series 740 with itself, the maximum recoat time is 45 days.

Temperature | To Touch | To Handle | To Recoat | To Resist Moisture
---|---|---|---|---
75°F (24°C) | 2 hours | 6-8 hours | 8 hours | 13 hours

UNTHINNED
- 0.83 lbs/gallon (99 grams/litre)

THINNED 5% (Max) (No. 49 Thinner): 0.85 lbs/gallon (99 grams/litre)

THINNED 5% (Max) (No. 42 Thinner): 1.06 lbs/gallon (139 grams/litre)

Volatile Organic Compounds

Thinned 10% (Max) (No. 68 Thinner): 0.83 lbs/gallon (99 grams/litre) †

HAPS
- Unthinned: 0 lbs/gal solids
- Thinned 10% (Max) (No. 68 Thinner): 0 lbs/gal solids
- Thinned 5% (Max) (No. 42 Thinner): 0 lbs/gal solids
- Thinned 5% (Max) (No. 49 Thinner): 0 lbs/gal solids

Theoretical Coverage

1,171 mil sq ft/gal (28.7 m²/L at 25 microns). †

Two: Part A and Part B

THEORETICAL COVERAGE

By volume: Four (Part A) to one (Part B)

MIXING RATIO
PART A (Partially filled) | PART B (Partially filled) | When Mixed
---|---|---
Large Kit | 5 gallon pail | 1 gallon can | 3 gallons (11.3L)
Small Kit | 1 gallon pail | 1 quart can | 1 gallon (3.79L)

Packaging

NET WEIGHT PER GALLON
12.7 ± 0.25 lbs (5.57 ± 0.11 kg) †

STORAGE TEMPERATURE
Minimum 20°F (-7°C) Maximum 110°F (43°C)

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

SHELF LIFE
12 months at recommended storage temperature.

Part A: 102°F (39°C) Part B: 109°F (42°C)

Flash Point - SetA
Paint products contain 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

<table>
<thead>
<tr>
<th>Topcoat Service</th>
<th>Dry Mils (Microns)</th>
<th>Wet Mils (Microns)</th>
<th>Sq Ft/Gal (m²/Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested</td>
<td>4.0 (100)</td>
<td>5.5 (140)</td>
<td>293 (27.2)</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.5 (65)</td>
<td>3.5 (90)</td>
<td>468 (43.5)</td>
</tr>
<tr>
<td>Maximum</td>
<td>6.0 (150)</td>
<td>8.0 (205)</td>
<td>195 (18.1)</td>
</tr>
</tbody>
</table>

Direct-to-Metal Service

| Minimum           | 6.0 (150)          | 8.0 (205)          | 195 (18.1)         |
| Maximum           | 8.0 (205)          | 11.0 (280)         | 146 (13.6)         |

Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. †

MIXING

Stir contents of the container marked Part A, making sure no pigment remains on the bottom. Add the contents of the can marked Part B to Part A while under agitation. Continue agitation until the two components are thoroughly mixed. Do not use mixed material beyond pot life limits. Caution: Part B is moisture-sensitive and will react with atmospheric moisture. Keep unused material tightly closed at all times.

THINNING

For air spray, thin up to 10% or 1/2 pint (380 mL) per gallon with No. 68 Thinner. For airless spray, thin up to 5% or 1/4 pint (190 mL) per gallon with No. 68 Thinner. For brush or roller, thin up to 5% or 1/4 pint (190 mL) per gallon with No. 49 Thinner. Note: No. 42 Thinner may be used to thin for brush and roller if temperatures are not expected to exceed 80°F (27°C). Thinning is required for proper brush or roller application. Caution: Do not add thinner if more than thirty (30) minutes have elapsed after mixing.

POT LIFE

1 hour at 75°F (24°C)

APPLICATION EQUIPMENT

Air Spray

<table>
<thead>
<tr>
<th>Gun</th>
<th>Fluid Tip</th>
<th>Air Cap</th>
<th>Air Hose ID</th>
<th>Mat'l Hose ID</th>
<th>Atomizing Pressure</th>
<th>Pot Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVilbiss JGA</td>
<td>E</td>
<td>765 or 704</td>
<td>5/16&quot; or 3/8&quot; (7.9 or 9.5 mm)</td>
<td>3/8&quot; or 1/2&quot; (9.5 or 12.7 mm)</td>
<td>50-65 psi (3.4-4.5 bar)</td>
<td>10-20 psi (0.7-1.4 bar)</td>
</tr>
</tbody>
</table>

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

<table>
<thead>
<tr>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.015&quot;-0.017&quot; (380-430 microns)</td>
<td>4000-4500 psi (275-310 bar)</td>
<td>1/4&quot; or 3/8&quot; (6.4 or 9.5 mm)</td>
<td>60 mesh (250 microns)</td>
</tr>
</tbody>
</table>

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller Use: 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap roller cover. Do not use long nap roller covers.

Brush Use: high quality natural or synthetic bristle brushes.

Note: Two or more coats may be required to obtain recommended film thicknesses.

SUGGESTED THINNING PIECES

Minimum 40°F (4°C) Maximum 120°F (49°C)

The surface should be dry and at least 5°F (3°C) above the dew point. Cure time necessary to resist direct contact with moisture at surface temperature: 75°F (24°C) - 13 hours. If the coating is exposed to moisture before the preceding cure parameters are met, dull, flat or spotty-appearing areas may develop. Actual times will vary with air movement, film thickness and humidity.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner, xylene or MEK, or use appropriate cleanup solvents that comply with applicable regulations. Use Tnemec No. 74 Thinner when needed to comply with VOC regulations.

† Values may vary with color.

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