Archco 420 is a two-part, high solids, modified epoxy lining providing ultra-low permeability. It has excellent resistance to microbial-induced corrosion (MIC) and acids. Archco 420 is suitable for application via single-leg or plural spray equipment.

Archco 420 provides a protective lining for storage tanks and pipelines with ultra-low permeability. The coating will provide excellent protection against MIC and acidic environments. It is also resistant to hydrocarbons where MIC is found.

- Ultra-low permeability/transmission
- Excellent resistance to MIC
- Resistant to hydrocarbons
- Excellent acid resistance
- Long working life
- Good cure response

All contaminants shall be removed from the steel surface to be coated. Oil and grease should be removed in accordance to SSPC-SP-1. Surfaces shall be free from projections, sharp edges, high points and fillets must be grind smooth including all corners. Prepare surfaces by grit blasting to a clean, near-white finish, per SSPC-SP 10, NACE No. 2 or Sa 2-1/2. Appropriate angular grit shall be used to achieve a 3-5 mil (76 to 127 microns) anchor profile. Remove grit prior to coating.

To spray Archco 420 in a plural-component system, an airless spray unit with a proportioning pump capable of a volume mixing ratio of 4:1 shall be used. Standard ancillary equipment should include minimum 10 gallon (38 L) hoppers, 2 each static mixers, 25 ft. (7.6 m) max x ¼" (6.35 mm), and mastic gun with a 19 to 25 thou (0.48 - 0.63mm) tip. A minimum of 2800 psi (19 MPa) fluid pressure at the tip is required for proper atomization. Part A should be heated to 80°F-100°F (27°C-38°C) and Part B should be heated to 80°F-100°F (27°C-38°C). Hose bundle shall be set at 80°F-100°F (27°C-38°C). A single-leg, airless spray unit may also be used. The unit shall have a minimum of 45:1 airless pump. When using the airless unit, the Archco 420 should not be thinned more than 5% with Archco 400E Thinner (3 lbs /1.4 kg per 5 gal /19 L kit). Material shall be between 70°F and 90°F (21°C-32°C).

A wet-on-wet spray technique should be used to achieve a thickness of 12-15 mils (305 - 381 microns) WFT. The coating thickness should be measured using a wet-film thickness gauge. The equipment settings are only guidelines and may vary based on equipment and specific application.
# Archco™ 420 Epoxy

## TECHNICAL DATA

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids Content</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Base Component — unmixed @ 77°F (25°C)</strong></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.7</td>
</tr>
<tr>
<td>Viscosity</td>
<td>30,000 cP</td>
</tr>
<tr>
<td>Color</td>
<td>Light Blue</td>
</tr>
<tr>
<td><strong>Hardener — unmixed @ 77°F (25°C)</strong></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.5</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1,000 cP</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td><strong>Mixed Material — mixed @ 77°F (25°C)</strong></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.6</td>
</tr>
<tr>
<td>Viscosity</td>
<td>10,000 cP</td>
</tr>
<tr>
<td>Color</td>
<td>Light Blue</td>
</tr>
<tr>
<td><strong>Mixing Ratio (A/B) by Volume</strong></td>
<td>1:1</td>
</tr>
<tr>
<td><strong>by Weight</strong></td>
<td>1.2:1</td>
</tr>
<tr>
<td><strong>Cure Times</strong></td>
<td></td>
</tr>
<tr>
<td>Pot Life @ 77°F (25°C)</td>
<td>240 minutes</td>
</tr>
<tr>
<td>Pot Life @ 97°F (36°C)</td>
<td>100 minutes</td>
</tr>
<tr>
<td>Time to Dry @ 35°F (2°C)</td>
<td>10-12 hours</td>
</tr>
<tr>
<td>Time to Dry @ 50°F (10°C)</td>
<td>3-5 hours</td>
</tr>
<tr>
<td>Time to Dry @ 77°F (25°C)</td>
<td>3-4 hours</td>
</tr>
<tr>
<td><strong>Recoat Window</strong></td>
<td>Overnight</td>
</tr>
<tr>
<td><strong>Theoretical Coverage</strong></td>
<td>80 ft²/15 mils/gallon (2.1 m²/381 microns/Liter)</td>
</tr>
<tr>
<td>Thickness per coat</td>
<td>8-12 mils DFT (203-305 microns)</td>
</tr>
<tr>
<td>Holiday Detection – based on min. mil.</td>
<td>100 volts/mil (3936 volts/mm)</td>
</tr>
<tr>
<td>Hardness (ASTM D2240-02)</td>
<td>Shore D 80</td>
</tr>
<tr>
<td>Adhesion to Steel</td>
<td>2,200 psi (15.2 MPa)</td>
</tr>
<tr>
<td>Application Temperature</td>
<td>20°F-100°F (-7°C-36°C)</td>
</tr>
<tr>
<td>Application Temperature – Metal</td>
<td>60°F-100°F (15°C-38°C)</td>
</tr>
<tr>
<td>Application Temperature – Material</td>
<td>70°F-90°F (21°C-32°C)</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>0°F-200°F (-18°C-93°C)</td>
</tr>
</tbody>
</table>

### STORAGE
Minimum 24 months when stored in original container @ 40°F (4°C) to 105°F (41°C). On job site where temperatures are below 50°F (10°C), product should be kept warm to allow for easy transfer into storage hoppers for warming to proper spraying temperatures.

### CLEANING
Clean equipment with isopropyl alcohol, butanol, or equivalent solvent cleaner.

### HEALTH AND SAFETY
Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See Safety Data Sheet for further information.

### PACKAGING
5 Gallon (19 liters) and 10 gallon (38 liters) kits. Other sizes available upon request.