



american coating technologies
www.amcoating.com

Product Technical Data

AM 3470 Fast Setting Novolac Epoxy Coating

Product Description

AM 3470 is a fast setting Novolac epoxy coating, 100% solids and completely non-hazardous. AM 470 is the ultimate coating for repairs and rehabilitation for pipelines operating at maximum temperatures up to 100°C (212°F). This two-part, solvent free epoxy can easily achieve a dry film thickness of up to 40 mils with one pass. This product offers superior adhesion and abrasion resistance.

Product Applications

- Girth welds, valves, fittings, bends, and odd shapes
- Rehabilitation and repair of pipelines, new pipelines, or any other metal substrate needing corrosion protection

Product Features and Benefits

- 100% Solids, Epoxy Novolac
- NO VOCs and NO ISOCYANATES
- Novolac Chemistry-designed for pipeline operating temperatures up to 100°C (212°F)
- Superior abrasion resistant properties
- AM 3470 can be spray or hand applied-field work made easier
- Superior bonding to bare steel and FBE
- Excellent cathodic disbondment properties, adhesion, and flexibility

Adhesion Strength:

ASTM D 4541 3,000 PSI

Abrasion Resistance:

ASTM D 4060 CS 17 WHEEL 1000 CYCLES
1 KG 42MG

Rockwell Hardness:

ASTM D 2240 80

Compression Strength:

ASTM D 695 16,000PSI

Flexural Strength

D 790 13,000PSI

Tensile Shear Strength:

ASTM D 1002 3,500PSI

Specific gravity:

ASTM D 3289-03 1.47

Compressive Strength:

ASTM C-109 15,500 psi

Hardness:

ASTM D-2240 85 Shore D

Resistance to Acids & Alkalies:

ASTM C-481 Excellent

Thin Film Water Absorption:

ASTM D-570-98 1.44 average weight gain

Cubed Water Absorption After Immersion:

ASTM C 642-82

Dielectric Strength (in oil):

ASTM D-149 746.83 volts/mil

Adhesion to FBE:

ASTM D 4541 Greater than 2,200 psi

Adhesion to Bare Steel:

ASTM D 4541 Greater than 2,200 psi

Impact Resistance:

ASTM G-14-88 72 in-lbs./8.13 joules

Flexibility:

NACE RP-0394 0.6°/pd

Tabor Abrasion CS-17 Wheel:

ASTM D-4060-95 1785 cycles/mil

Cathodic disbondment @ 28 days

Temp 195°F:

ASTM-G95
Less than 10 mm disbondment

Product Guide:

Surface profile 2.45-4.0 mils; 63-101 microns Surface preparation SA 2 ½ , SSPC-10-near white, SSPC-SP5-white Color Beige Single coat thickness: Manually applied Spray applied 30+ mils 40+ mils Recoat Interval 15 min@45°F; 10 min@70°F; 7 min@100°F Clean up MEK

Maximum operating temperature:

212°F (100°C)

Compatible line coatings:

FBE, CTE

Mixing Ratio by Volume:

3 part A: 1 part B

Mixing Ratio by Weight:

5 part A: 1 part B

Cure Schedule:

| | |
|----------------------------|--------------|
| Pot life @ 45°F | 25 minutes |
| Pot life @ 70°F | 12 minutes |
| Pot life @ 100°F | 4 minutes |
| Gel time @ 45°F | 30 minutes |
| Gel time @ 70°F | 15 minutes |
| Gel time @ 100°F | 12 minutes |
| Dry time @ 45°F | 4 hours |
| Dry time @ 70°F | 1 hour |
| Dry time @ 100°F | 30 minutes |
| 65 Shore D reading @ 45°F | 3 hours |
| 65 Shore D reading @ 70°F | 2 hours |
| 65 Shore D reading @ 100°F | 30 minutes |
| 80 Shore D reading @ 45°F | 72 hours |
| 80 Shore D reading @ 70°F | 6 hours |
| 80 Shore D reading @ 100°F | 2 hours |
| Application temp range | 38°F – 150°F |

Shelf Life:

1 year

Typical Application:

Theoretical Coverage Rates:

425 mil-sq. ft./liter
1605 mil-sq. ft./US gallon
1.0 mm-m2/litre

Recommended Film Thickness:

Wet: 8 to 12 mils per coat two coats recommended
Dry is the same because this is 100% solids

AM 3470 Instructions:

1) **APPLICATION GUIDE:** Spray Grade: Plural component spray system-Tip size .027 – .037 Brush Grade: Brush or Roller

2) **TEMPERATURE CONSIDERATIONS:** If the surface to be coated is below 10°C (50°F), preheating of the substrate is recommended. Preheat temperatures should not exceed 93°C (200°F) prior to the application.

3) **STORAGE and HANDLING:** For optimum performance, store R3470 products in a dry, well ventilated area. Maintain products in original packaging and sealed until just before use. Avoid exposure to direct sunlight, rain, snow, dust, or other adverse environmental conditions or contaminants.

4) **SAFETY:** Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.

| Recommended Tip Sizes | | |
|-----------------------|----------------------|--|
| Tip Size | Pipe Size (DN) | Flow Rates |
| 331 | To 12" (DN300) | 19 tip=1.1 L/min. |
| 419/431 | 12"-16" (dn300-400) | 31 tip=2.8 L/min. |
| 519/531 | 16"-24" (DN400-600) | Note: fluid pressure at tip approx. 3,500psi |
| 619/631 | 24"-48" (DN600-1200) | 531 |

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