carboline®
Coatings - Linings - Fireproofing

# Phenoline® 333

PRODUCT DATA SHEET

## SELECTION & SPECIFICATION DATA

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|---|---|
| **Generic Type** | Low bake, high solids modified epoxy |
| **Description** | Phenoline 333 is a low bake, high solids, modified epoxy formulated for use as a protective lining with excellent resistance to molten sulfur. Excellent chemical and thermal shock resistance. |
| **Color** | Black |
| **Finish** | Gloss |
| **Primer** | Self-Priming – one coat application only |
| **Weld Preparation** | NACE RP0178-89, Weld Prep Designation C |
| **Wet Film Thickness** | 7 to 10 mils (178 to 254 microns) |
| **Dry Film Thickness** | 5 - 7 mils (127 - 178 microns) per coat<br><br>1 coat only (do not apply dress coat) |
| **Typical Uses** | Lining for corrosive immersion environments, where commodities may contain sulfates. Formulated as an interior lining for resistance to molten sulfur with effective heat distribution and heat dissipation. |
| **Solids Content** | By Volume 72%<br><br>(mixed) |
| **Theoretical Coverage Rate** | 1155 ft²/gal at 1.0 mils (28.3 m²/l at 25 microns)<br>231 ft²/gal at 5.0 mils (5.7 m²/l at 125 microns)<br>165 ft²/gal at 7.0 mils (4.0 m²/l at 175 microns)<br>Allow for loss in mixing and application. |
| **VOC Values** | **As Supplied** : 2.0 lbs./gal. (238 g/l)<br><br>mixed |
| **Dry Temp. Resistance** | Continuous: 325°F (163°C)<br>Non-Continuous: 350°F (177°C)<br><br>Loading temperatures should be limited to 300 °F (149 °C) and unloading to 325°F (163 °C). Steel car should be greater than 0 °F (-18 °C) when loaded. |

## SUBSTRATES & SURFACE PREPARATION

| | |
|---|---|
| **General** | NACE No.2/SSPC-SP 10 Near White Metal Blast. Anchor (surface) profile should be a sharp, angular and dense 2.5 to 3.0 mil (visual comparator) profile. |

## MIXING & THINNING

| | |
|---|---|
| **Mixing** | 4:1 by volume |
| **Thinning** | Thinner 231 |

## MIXING & THINNING

**Pot Life**
1 Gallon Kit (mixed) - 70 min. at 77 °F (25 °C)
5 Gallon Kit (mixed) - 35 min. at 77 °F (25 °C)

## APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**Airless Spray**
Pump Ratio: 45:1
Tip Size: 0.017-0.019" (617-619)
Output PSI: 2,800
recommended minimum to obtain proper atomization

**Brush**
A small brush can be used for touchup of WFT marks and other small repair areas.

## APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|---|---|---|---|---|
| Minimum | 70°F (21°C) | 60°F (16°C) | 50°F (10°C) | 0% |
| Maximum | 90°F (32°C) | | 50°F (10°C) | 90% |

Non-contaminated profile (pretreat and blast contaminated surfaces)
Dry, dust-free metal surface

## CURING SCHEDULE

| Surface Temp. | Dry to Touch | Dry to Handle | Dry to Recoat |
|---|---|---|---|
| 77°F (25°C) | 4 Hours | 6 Hours | 10 Hours |

**Air Dry Schedule:**

- Circulate warm air at 85-90 °F (29-32 °C) for 12 hours minimum. All touch-ups must be made before force cure.

**Force Cure**
Ramp rate at 50 °F (10 °C) every 30 minutes
150 °F (66 °C) soak temperature for 4 hours

## CLEANUP & SAFETY

**Cleanup**
Thinner 2 or Acetone

**Safety**
Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

## PACKAGING, HANDLING & STORAGE

**Shelf Life**
24 months

**Flash Point (Setaflash)**
63 °F (17 °C)

## WARRANTY

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