AMERTHANE® 490

DESCRIPTION

Aromatic Polyurethane Hybrid

PRINCIPAL CHARACTERISTICS

- High build, single coat protection
- 100% solids
- Tough, flexible, and impact resistant
- Fast dry times for rapid topcoating
- Cures through a wide temperature range
- Potable water tank lining
- Suitable for wastewater applications, pipe exteriors, high wear surfaces, and cargo holds

COLOR AND GLOSS LEVEL

- Off White, other colors available on a limited basis
- Semi-gloss

Note: Product is prone to some degree of discoloration. Discoloration does not impact performance. Light colors will darken over time. Some batch-to-batch variation in color is to be expected. Color matches are approximate.

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Volume solids	100%
VOC (Supplied)	max. 0.0 lb/US gal (approx. 0 g/l)
Recommended dry film thickness	20.0 - 100.0 mils (500 - 2500 µm) depending on system
Theoretical spreading rate	16 ft^2/US gal for 100.0 mils (0.4 m^2/l for 2500 µm)
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Steel

- Remove weld spatter, protrusions, and laminations in steel. Grind welds smooth in accordance with NACE RP-0178
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher. Achieve a surface profile of 3.0 – 4.5 mils (75 – 114 µm)

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Concrete

- Remove all surface contaminants such as oil, grease, and embedded chemicals
- Abrade the surface per ASTM D4259 to remove all chalk and surface glaze or laitance
- Mechanical surface preparation should expose sub-surface voids and provide a surface profile equivalent to 60 grit sandpaper or coarser
- Test for moisture by conducting a plastic sheet test in accordance with ASTM D4263
- Slabs on grade should have a maximum moisture content of 3 lbs / 1,000 ft^2/24 hours when measured by calcium chloride test. Prime with AMERLOCK SEALER or AMERLOCK 2/400.
- Surface should be free from moisture in accordance with ASTM D4263. Refer to Information Sheet # 1496ACUS for further details regarding moisture measurements
- Prime with Amerlock Sealer or Amerlock 2/400.

Repair

- Remove all rust, loose paint, grease, or other contaminants. Spot abrasive blast damaged areas to remove old coatings and prepare the steel to an SSPC SP10 condition with a 2.0-5.0 mil anchor profile. Alternately power too clean to bare metal as per SSPC SP-11 to obtain a uniform and dense, minimum 2.0 mil anchor profile.
- Taper abrade in-tact and adhered coating surrounding the repair area terminating at a feathered edge at the substrate.
- Apply this product to the specified thickness as soon as possible after the surface is prepared

Substrate temperature and application conditions

- Surface temperature during application should be between 20°F (-7°C) and 110°F (43°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 20°F (-7°C) and 110°F (43°C)
- Relative humidity during application should be above 0% and below 85%

SYSTEM SPECIFICATION

- It is essential that all applications with this product follow the detailed instructions presented in the application guides for steel or concrete. Please see your PPG PMC represenative to obtain and review a copy of the application guide.
- Primers: Direct to metal only for potable water applications; AMERCOAT 370 or AMERLOCK 2/400 for steel

Note: Apply this product after the dry time of the epoxy and not greater than 72 hours after the epoxy

INSTRUCTIONS FOR USE

- Product may only be applied with plural component spray
- MIx each component thoroughly prior to application and ensure the contents remained homogenized.

Mixing ratio

- Mixing ratio is 1 part A component (clear hardener) to 2 parts Component B (pigmented resin)

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Application

- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns
- Gel time: 90°F – 120°F – 40 – 80 seconds

Material temperature

Material temperature during application should be between 95°F (35°C) and 110°F (43°C)

Airless spray: Plural component

- Hoses should normally be kept as short as possible
- 45:1 pump or larger
- 95 – 110°F at gun (35 – 43°C); 12" x 3⁄8" 24 element Static Mixer; 50' of 3⁄8" Fluid Line

Recommended thinner

No thinner should be added

Nozzle orifice

0.019 – 0.025 in (approx. 0.48 – 0.64 mm)

Nozzle pressure

2500 - 4000 p.s.i. (approx. 173 - 276 bar; 17.2 - 27.6 MPa)

Brush/roller

- If needed for touch up, collect a small quantity from the static mixer and apply to the repair area with a well loaded, natural bristle brush
- Be aware the gel time is typically less than 1 minute

Recommended thinner

No thinner should be added

Cleaning solvent

AMERCOAT 12 CLEANER

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ADDITIONAL DATA

Overcoating interval for DFT up to 30.0 mils (762 µm)					
Overcoating with...	**Interval**	**40°F (4°C)**	**50°F (10°C)**	**70°F (21°C)**	**90°F (32°C)**
itself	Minimum	8 hours	6 hours	4 hours	2 hours
	Maximum	24 hours	24 hours	24 hours	16 hours

Note: Abrade to de-gloss with 100-grit sandpaper if maximum recoat time is exceeded or if surface tempreatures are higher than typical ambient temperatures.

Curing time for DFT up to 30.0 mils (762 µm)					
Substrate temperature	**Dry to touch**	**Dry hard**	**Service- water immersion**	**Service- potable water immersion**	**Heavy impact/abrasion**
40°F (4°C)	45 minutes	8 hours	48 hours	3 days	6 days
50°F (10°C)	30 minutes	6 hours	36 hours	3 days	4 days
70°F (21°C)	12 minutes	4 hours	24 hours	3 days	3 days
90°F (32°C)	5 minutes	2 hours	18 hours	3 days	48 hours

Product Qualifications

- ANSI / NSF Standard 61 for drinking water (minimum 700 gallon tanks, 72 hour return to service, 20 – 100 mils)
- AWWA D102-06 Inside Coating System #4

DISCLAIMER

- For industrial or professional use only

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

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REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD	INFORMATION SHEET	1431

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Packaging: Available in 5 gallon kits and 55-gallon drums

Product code	Description
AMER4903	White
AMER490B	Clear hardener - Component A*
AMER4902	Gray
AMER4909	Black
AMER49072	Oxide Red
AMER4905	Blue
AMER49072	Safety Orange

Note: * Note that the product mixing ratio is 1 part Component A (clear hardener) to 2 parts Component B (pigmented resin)