VERSAFLEX 468

DESCRIPTION

Two-component, high solids aliphatic direct-to-metal polyaspartic coating

PRINCIPAL CHARACTERISTICS

- Rapid cure and overcoating provides high steel throughput
- Outstanding weather resistance with excellent color and gloss retention
- High solids, low VOC, low HAPs
- Can be applied as a single coat, direct-to-metal system at 5-10 mils for moderately corrosive environments (up to ISO 12944 C4H)
- Durable, flexible and abrasion resistant
- Cures through a wide temperature range
- Good resistance to splash and spillage of chemicals
- Can be applied directly over organic zinc primers

COLOR AND GLOSS LEVEL

- Standard Color Offering, Custom Colors
- Gloss, semi-gloss and low sheen

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Volume solids	75 ± 2%
VOC (Supplied)	max. 2.0 lb/US gal (approx. 245 g/l)
Recommended dry film thickness	5.0 - 10.0 mils (125 - 250 µm) depending on system
Theoretical spreading rate	241 ft^2/US gal for 5.0 mils (6.0 m^2/l for 125 µm) 120 ft^2/US gal for 10.0 mils (3.0 m^2/l for 250 µm)
Dry to handle	2 hours
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 36 months when stored cool and dry

Notes:

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

VERSAFLEX 468

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is proportional to the degree of surface preparation. Refer to the application instructions for specifc primers and intermediate coats for application and curing procedures. Ensure epoxies are free from amine blush prior to overcoating. All previous coats must dry and free of contaminants. Adhere to all minimum and maximum topcoat times for specific primers and intermediate coats. Aged epoxy coatings require abrading prior to applying the product. A test patch over unknown coatings is recommended.

Atmospheric exposure conditions

- Ambient temperature during application and curing should be between 35°F (2°C) and 122°F (50°C)
- Material temperature should be between 50°F (10°C) and 100°F (38°C)
- Relative humidity must be between 40% and 85% during application and curing.

Steel

- Remove weld spatter, protrusions, and laminations in steel
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-6 or SP-10 cleanliness for optimum performance. Achieve a surface profile of 1.5 – 3.0 mils (38 – 75 µm)
- Apply an epoxy or zinc rich primer for agressive service environments

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
- Use a suitable epoxy to prime the concrete. Refer to primer data sheet for further surface preparation details

Non-ferrous metals

- Lightly abrasive blast or mechanically abrade in accordance with SSPC SP-16 to achieve a uniform and dense 1.5 – 4.0 mil anchor profile
- Apply an epoxy primer for aggressive environments

Aged coatings

- Ensure the coating system is sound and well adhered
- Do not apply over acrylic coatings or coatings that exhibit poor solvent resistance
- A test patch is recommended to determine compatibility and adhesion
- Sweep blast or otherwise thoroughly abrade the existing coating in accordance with SSPC SP-7
- Alternately, PREP 88 may be used to prepare some existing coatings. Please refer to PREP 88 data sheet for details
- Feather the edges of tightly adhered, in-tact coatings at the perimeter of repair areas
- Power tool clean the existing steel in accordance with SSPC SP-3 (atmospheric service)

VERSAFLEX 468

Substrate temperature

- Substrate temperature during application should be between 35°F (2°C) and 122°F (50°C)
- Substrate temperature during application should be at least 5°F (3°C) above dew point

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 4:1

- Pre-mix base component with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1–2 minutes until completely dispersed
- The thinner should be added immediately after mixing the two components

Note:

- Do not mix previously catalyzed material with new

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
- Protect from moisture until dry through time is reached

Note:

- Do not overthin. Overthinning will result in reduced film build properties

Pot life

1 hour at 70°F (21°C)

Notes:

- Moisture contact can reduce pot-life and may affect gloss and color
- To extend pot life at temperatures > 90°F (32°C), Thinner 21-22 is recommended at 15%
- Product pot-life is exceeded when coating becomes too viscous to use. Attempting to apply this material after that point may result in low gloss values.
- Do not work with the material beyond recommended pot-life. If the pot-life is exceeded (i.e. the coating shows variation in fluidity), it can no longer be diluted for further application.

VERSAFLEX 468

Air spray

- A moisture and oil trap in the main line is essential. Product is sensitive to moisture contamination

Recommended thinner

THINNER 60-12 (AMERCOAT 911)

THINNER 21-22 (preferred) or THINNER 21-06

Volume of thinner

0 - 10%

Nozzle orifice

Approx. 0.070 – 0.090 in (1.8 – 2.2 mm)

Airless spray

- 45:1 pump or larger
- Hoses should normally be kept as short as possible

Recommended thinner

THINNER 60-12 (AMERCOAT 911)

THINNER 21-22 (preferred) or THINNER 21-06

Volume of thinner

0 - 10%

Nozzle orifice

0.017 - 0.021 in (approx. 0.43 - 0.53 mm)

Nozzle pressure

17.2 - 20.7 MPa (approx. 172 - 207 bar; 2495 - 3003 p.s.i.)

VERSAFLEX 468

Brush/roller

- Recommended for touch-up or small areas only
- Use a high quality natural bristle brush and/or solvent resistant, 1/4" or 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build

Recommended thinner

THINNER 60-12 (AMERCOAT 911)

THINNER 21-22 (preferred) or THINNER 21-06

Volume of thinner

0 – 5%

Cleaning solvent

- THINNER 21-06 (AMERCOAT 65)

CLEANING PROCEDURE

- Clean equipment before use or before periods of extended downtime with Thinner 21-06 (Amercoat 65) to prevent blockages in spray equipment

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
5.0 mils (125 µm)	241 ft^2/US gal (6.0 m^2/l)
8.0 mils (200 µm)	150 ft^2/US gal (3.8 m^2/l)
10.0 mils (250 µm)	120 ft^2/US gal (3.0 m^2/l)

Curing time for DFT up to 5.0 mils (125 µm)		
Substrate temperature	**Dry to touch**	**Dry to handle**
50°F (10°C)	45 minutes	3 hours
70°F (21°C)	35 minutes	2 hours
90°F (32°C)	30 minutes	1.5 hours

VERSAFLEX 468

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
50°F (10°C)	2 hours
70°F (21°C)	1 hour
90°F (32°C)	45 minutes

Product Qualifications

- Compliant with USDA Incidental Food Contact Requirements
- SSPC Paint 43 Performance

DISCLAIMER

- For industrial or professional use only

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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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