PPG HI-TEMP™ 808

DESCRIPTION

Water based acrylic insulative coating

PRINCIPAL CHARACTERISTICS

- 100% adherent, low permeability seamless composite insulation material that can be applied to metal at temperatures up to 149°C (300°F)
- Excellent for use as a personnel protection material, reducing burn injuries and reportable lost time accidents
- Offers an economical alternative to conventional insulation and jacketing for process equipment and piping up to 177°C (350°F)
- Reduces energy needs
- Enhances process stability
- Reduces total installation time compared to traditional insulation
- No cutting, tapping, or special hangers. Special fabrication is not required.
- Prevents Corrosion Under Insulation (CUI)
- Applicable to many substrates
- Non-combustible. Class A Fired Rated
- No pot life. Single component and water based
- Can easily be repaired if mechanically damaged
- Contains no harmful chlorides or toxins
- Successive coats will increase insulating capabilities

COLOR AND GLOSS LEVEL

- White, gray
- Flat

BASIC DATA AT 20°C (68°F)

Data for product	
Number of components	One
Volume solids	78 ± 2%
VOC (Supplied)	max. 12.1 g/l (approx. 0.1 lb/US gal)
Temperature resistance	To 350°F 177°C)
Recommended dry film thickness	15.0 - 20.0 mils (375 - 500 µm) depending on system
Theoretical spreading rate	63 ft^2/US gal for 20.0 mils (1.6 m^2/l for 500 µm)
Dry to overcoat	4.5 hours
Shelf life	At least 18 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Curing time

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general proportional to the degree of surface preparation. All surfaces must be dry and free of oil, grease, and other surface contamination.

Substrate temperature and application conditions

- Surface temperatures during application and curing must be greater than 60 °F though ambient temperatures may be lower.
- The surface temperature must be at least 5°F (3°C) above dew point
- Relative humidity should not exceed 85%; surface must be free of visible moisture
- Mild steel must be primed with a recommended primer prior to the application of HT 808.
- Steel surfaces should be abrasive blasted to an SSPC SP-6 condition or higher prior to achieve the recommended profile for the specified primer.
- For steel structures operating at less than 200°F, power tool cleaning per SSPC SP-3 may be acceptable.
- Non-ferrous metals, stainless steel, and new galvanized steel may should be brush blasted per SSPC SP-16 requirements. Galvanizing with at least 12 months exterior weathering may be primed with an epoxy primer after solvent wiping per SSPC SP-1 standards.

Hot application

- Consult PPG technical service for instructions on hot application

Application equipment

- HT 808 may be applied with airless spray or a specialized small application sprayer. Consult PPG for details on the small application sprayer.

SYSTEM SPECIFICATION

- Approved primers include Amercoat 5105, Amerlock 400, Hi-Temp 222 G, Sigmatherm 230
- Consult PPG for other approved primers.
- See table below for HT 808 thickness recommendations
- Durethane DTM may be applied as a topcoat.

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THICKNESS RECOMMENDATIONS

Insulation and Personnel Protection		
Operating temperature	**Recommended thickness**	**Number of layers**
275°F (140°C)	1000 µm (40.0 mils)	3
300°F (150°C)	1523 µm (60.0 mils)	4
325°F (160°C)	2032 µm (80.0 mils)	5
350°F (180°C)	3048 µm (120.0 mils)	7

Notes:
- Multiple coats will be applied to achieve the recommended film thickness for the operating temperature. A minimum of 40 mils is recommended.
- Spray a light 5-10 mil initial tack coat to deter sliding of the product.
- Normal thickness per coat is 20-24 wet mils.
- In cold weather, apply mulitple thin (10-12 mils) coats.

INSTRUCTIONS FOR USE

- Store product in a cool dry area and keep from freezing. Approximately 8 hours prior to use, turn pails up-side-down to allow product to soften and become easier to mix.
- Place feet on both sides of the container to prevent it from spinning while mixing. Mix thoroughly using a 1/2" reversible drill motor and 1/2" sheet rock mud mixing paddle (blade style). Reverse setting is important because mixing on forward setting can sheer plastic off bucket walls, contaminating the coating. Mix the product until a uniform consistency is obtained. Note that over-mixing (more than 5 minutes at normal room temperature) may adversely affect the product.
- Flush all equipment with 20-30 gallons of tap water prior to use.
- Mask/cover all areas subject to over-spray.

Note: A topcoat should be specified on structures where ponding water is expected.

Airless spray
- Use a 3/8" or larger fluid hose with a maximum of 3 feet of 1/4" whip. A 1/2" fluid hose is strongly recommended for lengths greater than 50 feet.
- Hoses should normally be kept as short as possible
- Remove gun and pump suction filters

Recommended thinner
- No thinner should be added

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

Nozzle pressure
3000 - 3500 p.s.i. (approx. 207 - 242 bar; 20.7 - 24.1 MPa)

Note: A 0.017" tip works well for spraying tight, complex areas and small parts

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Brush/roller

- Roller application is not recommended
- Small damaged or bare areas and random pinholes or up by brush. Repair larger areas by spray.

Cleaning solvent

- Tap water

Note: Clean-up immediately after use with potable water. Discard clean up material in accordance with federal and local environmental regulations

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
40.0 mils (1000 µm)	31 ft^2/US gal (0.8 m^2/l)
80.0 mils (2000 µm)	16 ft^2/US gal (0.4 m^2/l)
120.0 mils (3000 µm)	11 ft^2/US gal (0.3 m^2/l)

Note: High humidity conditions may adversely affect film build characteristics

Overcoating Intervals up to 20 mils DFT based on Relative Humidity Ranges					
Overcoating with...	**Interval**	**10°C (50°F)**	**15°C (59°F)**	**20°C (68°F)**	**30°C (86°F)**
Itself up to 30% RH	Minimum	8 hours	6 hours	4 hours	1.5 hours
	Maximum	Extended	Extended	Extended	Extended
Itself 31-50% RH	Minimum	10 hours	8 hours	4.5 hours	2 hours
	Maximum	Extended	Extended	Extended	Extended
Itself 51-70% RH	Minimum	12 hours	10 hours	6 hours	2.5 hours
	Maximum	Extended	Extended	Extended	Extended
Recommended Topcoats up to 30% RH	Minimum	3 days	60 hours	42 hours	20 hours
	Maximum	Extended	Extended	Extended	Extended
Recommended Topcoats 31-50% RH	Minimum	3.5 days	3 days	48 hours	25 hours
	Maximum	Extended	Extended	Extended	Extended
Recommended Topcoats 51-70% RH	Minimum	4 days	3.5 days	60 hours	30 hours
	Maximum	Extended	Extended	Extended	Extended

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SAFETY PRECAUTIONS

- The product is for use only by professional applicators in accordance with information in this product data sheet and the applicable material safety data sheet (MSDS). Refer to the appropriate MSDS before using this material. All use and application of this product should be performed in compliance with all relative federal, state and local, health, safety and environmental regulations or in compliance with all pertinent local, regional and national regulations as well as good safety practices for painting, and in conformance with recommendations in SSPC PA 1, “Shop, Field and Maintenance Painting of Steel.”

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.

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411

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