

# PPG PITT-THERM® 1000 FX

## DESCRIPTION

Two-component, 100% solids, flexible, high-build syntactic epoxy insulation coating. For use as a thermal barrier in conjunction with PPG PITT-CHAR® epoxy intumescent fire protection or as a stand-alone thermal insulation coating

## PRINCIPAL CHARACTERISTICS

- Extends the operating temperature limits of epoxy intumescent passive fire protection (PFP) coating while retaining advantages of a fully bonded, corrosion resistant barrier
- Tested in conjunction with PITT-CHAR NX® against pool and jet fires as a thermal barrier for use either under the epoxy PFP or over it
- Low thermal conductivity across a wide range of temperatures, requiring low film thicknesses to provide the required thermal barrier
- Can be applied by spray, nozzle or trowel techniques
- Low density coating, offering light weight, cost effective solutions
- Operating Temperature Limits: -60°C (-76°F) to +125°C (+257°F) continuous; for short term/infrequent excursions beyond these limits please contact PPG for advice
- Resistant to the damage from vibration, abrasion and impact from deflection of structures during fabrication, transportation and extreme loading conditions

## COLOR AND GLOSS LEVEL

- Green
- Matt

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	Applied density 0.5 g/cm <sup>3</sup> (31.2 lb/ft <sup>3</sup> )
Volume solids	100%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 0.0 g/kg max. 0.0 g/l (approx. 0.0 lb/US gal) EPA Method 24: 0.0 g/l (0.0 lb/USgal) EUR Directive: 2004/42/IIA(i)(500) 0.0 g/l (0.0 lb/US gal)
Temperature resistance (Continuous)	-60°C (-76°F) to 125°C (260°F)
Recommended dry film thickness	78.7 - 1181 mils (2000 - 30000 µm) depending on system
Shelf life	Base: at least 12 months when stored cool and dry Hardener: at least 12 months when stored cool and dry

Notes:

# PPG PITT-THERM® 1000 FX

- See ADDITIONAL DATA – Curing time
- The applied density is dependent upon many variables such as temperature, test method, application method and equipment
- Apply appropriate loss/wastage factor
- Required material thickness is dependent on thermal barrier requirements, contact your local PPG representative for more information
- Material should be stored in dry conditions, out of direct sunlight and at temperatures above 0°C (32°F) and below 35°C (95°F). If material is stored at higher temperatures, shelf life may be reduced
- At 35°C the shelf life for both components is reduced to 10 months.

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## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Previous coating layer should be within specified thickness, fully cured, and within over-coating interval guidelines for the system used
- For qualified primers and topcoats, please contact your PPG representative
- Please refer to the application guidelines

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## Substrate temperature and application conditions

- Ambient temperature below 10°C (50°F) is acceptable; however curing to hardness takes longer, and it will cease curing below 5°C (41°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Relative humidity during application and curing should not exceed 85%

### Note:

- Curing will effectively cease below 5°C (41°F), but once temperature rises again, it will continue to cure

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## INSTRUCTIONS FOR USE

- Application should be strictly in accordance with the PITT-THERM 1000 FX application guidelines
- Product shall only be applied by suitably trained applicators

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## Mixing ratio

- By volume: base to hardener 1:1
- By weight: base to hardener 1.16:1
- Tolerance +/- 10%

# PPG PITT-THERM® 1000 FX

**Airless spray: Plural component****Recommended thinner**

No thinner should be added

**Nozzle angle**

40° – 60°, depending on shape of steel parts

**Nozzle orifice**

Approx. 0.74 - 0.89 mm (0.029 - 0.035 in)

**Nozzle pressure**

24.0 - 31.0 MPa (approx. 240 - 310 bar; 3481 - 4496 p.s.i.)

**Notes:**

- Hoses should be kept as short as possible ; Suitable insulated and/or heated hoses should be used
  - After airless application, surface should be smoothed with trowel and/or roller using recommended cleaning solvent
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**Trowel****Recommended thinner**

No thinner should be added

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**Cleaning solvent**

- THINNER 91-92
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# PPG PITT-THERM® 1000 FX

## ADDITIONAL DATA

Curing time for solvent-free application					
Substrate temperature	Dry to touch	Through Dry	Dry to walk on	Dry to handle/ship	Full cure
5°C (41°F)	16 hours	4 days	1.5 months	60 hours	96 hours
10°C (50°F)	12 hours	48 hours	30 days	42 hours	72 hours
15°C (59°F)	10 hours	12 hours	18 hours	36 hours	56 hours
20°C (68°F)	8 hours	10 hours	16 hours	30 hours	48 hours
25°C (77°F)	6 hours	8 hours	12 hours	24 hours	36 hours
30°C (86°F)	4 hours	6 hours	10 hours	18 hours	30 hours
35°C (95°F)	3 hours	5 hours	8 hours	16 hours	24 hours
40°C (104°F)	2 hours	3 hours	6 hours	12 hours	20 hours

Notes:

- Adequate ventilation must be maintained during application and curing
- Curing times may vary depending on substrate, ambient and material temperature

Pot life	
Mixed product temperature	Pot life
23°C (73°F)	1 hour
30°C (86°F)	30 minutes

Note:

- Pot life is dependent on many variables including material temperature, substrate temperature, mixing time, addition of solvent, etc. Figures provided are for guidance only

## SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, 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.



# PPG PITT-THERM® 1000 FX

## REFERENCES

- Guide | PPG PITT-THERM 1000 FX | Application guidelines

## WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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