

Pitt Char[®] XP



Pitt-Char[®] XP Fire Protective Coating is a two-component epoxy based intumescent coating. The unique, patented composition of Pitt-Char XP Coating produces a flexible and tough epoxy barrier which transforms into a ceramic-like, insulating char that provides thermal protection of the substrate even under hydrocarbon and jet fire conditions. Pitt-Char XP Coating also protects the substrate from corrosion and retains its fire protection properties under aggressive chemical environments. This product is applied by our global network of trained and certified applicators.

Key Benefits

- Certified by all major testing and certification organization
- Ideal for harsh environments including chemical, industrial, offshore, and severe weather conditions
- Patented cross linked epoxy that produces a uniquely flexible intumescent coating
- Ideal for pre-fabricated structures where the steel is pre-coated and transported to the site for erection already fire protected
- Good substrate adhesion because of excellent surface wetting characteristics
- Resists solvents, acids, alkalis, salts and abrasion

Test Design	Test Method	Fire Rating
Structural Steel – range of Hp/A values for I and RH sections	NordTest Method NT Fire 021	1 to 4 hours Hp/A from 25 to 300 at temperature range of 200°C to 700°C
Column Test UL Design No. X-623	UL 263 Fire Tests of Building Construction and Materials	1.0, 1.5, 2.0, 2.5, & 3.0 hour ratings
Column Test UL Design No. X-612	UL 1709 Fire Tests of Structural Steel Protected for Resistance to Rapid Temperature Rise Fires	1.0, 1.5, 2.0, 2.5, & 3.0 hour ratings
Jet Fire Test	OTI 95-634 Jet Fire Resistance test of Passive Fire Protection Materials	2.0 hours on Division; 1.0 hour on Hollow and I-Sections
LPG/LNG Storage Tanks	US – DOT France – GASAFE	Protection up to 4.0 hours

Properties

Property	Method
Color	Gray (after mixing). May be topcoated. A suitable topcoat recommendation is available from your Pitt-Char XP Coating Technical Sales Representative.
Percent Solids by Weight	100%
In Service Temperature Restrictions	For applications on surfaces that exceed 150°F (65°C), consult your Pitt-Char XP Coating Technical Sales Representative.
Application Method	Pitt-Char XP coating must be applied only by trained applicators to ensure that proven application practices will be utilized. Air spray or specialized plural component airless equipment approved by PPG is recommended. Troweling can be used for small areas or touch-up work.
Drying Time	Approximately 24 hours to achieve a Shore D hardness of 25.
Shelf Life	Minimum shelf life under proper storage condition is: 97-194 and 97-194M - 1 Year from date of manufacture 97-195 and 97-195M - 2 Years from date of manufacture
Pot Life	At 77°F (25°C) and 50% relative humidity: Approximately 40 minutes. (Pot life is not a factor when using specialized plural component airless spray equipment.)
Flash point	Greater than 212°F (100°C) Pensky-Martens for each component.
Medical Response Information	Emergency Medical or Spill Control Information

Physical Properties

PROPERTY	TEST METHOD	RESULT TYPICAL
Tensile Strength Elongation	ASTM D-638 Type I ASTM D-638 Type I?	707 psi (49.7 kg/cm sqr) 19.4%
Compressive Strength Modulus	ASTM D-695	2264 psi (159.2 kg/cm sqr) 4660 psi (327.6 kg/cm sqr)
Impact Strength	ASTM D-256 "A"	1.46 ft. lbs./in. (0.079 kg m/cm)
Bond Strength	ASTM D-1002 (modified 0.5 in./min.) Tensile Lap Shear	1051 psi (73.9 kg/cm sqr)
Hardness determined by PPG	ASTM 2240 Shore D	25 after 24 hrs. at 20°C
Density	Practical density after spraying	68.7 lbs./ft. cubed (1.1 g/cc)
Thermal Conductivity	ASTM C-177 K. Value	1.69 BTU In./°F ft. sqr hr. (0.244 W/m °C)

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