



HPC/Industrial Maintenance

**GENERAL DESCRIPTION**

Pitt-Char XP Coating is a two component polyamide epoxy intumescent coating for cellulosic, hydrocarbon and jet fire rated structural steel, divisions, vessels and pipe. Pitt-Char XP Coating is certified by Lloyds Register (LR) and Det Norske Veritas (DNV) for structural steel and divisions. Jet Fire certified by LR and DNV for structural steel and divisions. Underwriters Laboratory (UL) has certified Pitt-Char XP for cellulosic (UL 263) and hydrocarbon (UL 1709) from 1-3 hrs protection.

**RECOMMENDED SUBSTRATES**

Carbon steel  
Stainless steel  
Galvanized steel  
Aluminum

**PACKAGING**

**Plural spray:** 3 pail kit

**97-194:** 2 x 58.9 lbs (26.75 kg) + **97-195:** 1 x 36.3 lbs (16.50 kg) = 154.1 lbs (70 kg) / kit

**Trowel or single component spray:** 2 pail kit

**97-194M:** 1 x 44.5 lbs (20.2 kg) + **97-195M:** 1 x 13.7 lbs (6.2 kg) = 58.2 lbs (26.4 kg) / kit

**SAFETY**

Read all label and Material Safety Data Sheet (MSDS) information prior to use. MSDS are available by calling 1-800-441-9695.

Not intended for residential use.

Spray equipment must be handled with due care and in accordance with manufacturer's recommendation. High-pressure injection of coatings into the skin by airless equipment may cause serious injury, requiring immediate medical attention at a hospital.

Pitt-Char XP® Epoxy Intumescent Fire Protective Coating

**PRODUCT INFORMATION**

97-194 or 97-194M Component A Epoxy

97-195 or 97-195M Component B Polyamide

**PRODUCT DATA**

<b>PRODUCT TYPE:</b>	Polyamide Epoxy Intumescent
<b>COLOR:</b>	97-194(M) Component A: Off white, 97-195(M) Component B: Black (Gray when mixed)
<b>DENSITY*:</b>	68.7 lbs/ft <sup>3</sup> (1100 kg/m <sup>3</sup> ) +/- 5% (Plural sprayed)
<b>VOC:</b>	0 g/L (0 lbs./gal.)
<b>WEIGHT/GALLON*:</b>	11.6 +/- 0.5 lbs/gal. 5.28 +/- 0.23 kg/gal. (mixed)
<b>VOLUME SOLIDS*:</b>	100%
<b>WET/DRY FILM/COAT :</b>	Typically 200 mils (5mm) per coat with plural heated airless. Plural heated airless application will have wet thickness = dry thickness. Solvent thinned applications will build less depending on solvent level.
<b>COVERAGE</b>	
<b>Per 39 mils (1mm):</b>	0.23 lbs./sq. ft. (1.10 kg./ sq. m)
<b>DRYING TIME:</b>	
60°F (16°C):	36 hours
75°F (24°C):	10 hours
100°F (38°C):	4 hours
<b>RECOAT:</b>	Cure to Shore A = 50 or Shore D = 25
Drying times listed may vary depending on temperature, humidity, and direct sunlight. Provide artificial heat where necessary to shorten cure times for recoat.	
<b>POT LIFE:</b>	Pot life of the thinned coating is 45 minutes at 77°F (25°C). Flush all catalyzed coating from pump, mixer, hoses and gun after 5 minute stoppage. Excess agitation of single component spray can induce excess heat into the coating and shorten pot life. 5 minutes maximum mixing per kit should suffice.
<b>IN SERVICE HEAT LIMITATIONS:</b>	176°F (80°C) maximum, dry heat
<b>CLEAN UP:</b>	Plural applications use hot water flush. Hand clean static mixer, gun and tip using epoxy thinner, MEK or Xylene. Solvent thinned mastic spray cleanup is epoxy thinner blend, MEK or Xylene.
<b>FLASH POINT:</b>	97-194 or 97-194M >212°F (100°C) 97-195 or 97-195M >212°F (100°C)
<b>SHELF LIFE:</b>	97-194(M): 18 months, 97-195 (M): 24 months

\*Product data calculated on mixed coating.

## GENERAL SURFACE PREPARATION

The service life of the coating is directly related to the surface preparation. The surface to be coated must be properly prepared, dry, clean and free of all contamination. Use nonmetallic grit on stainless steel or aluminum. Power tool cleaning, SSPC SP3, ST 3 may be used for small areas such as weld or local repairs under 10 ft<sup>2</sup> (1 meter<sup>2</sup>). It is not acceptable for large surface areas. **WARNING!** If you scrape, sand, or remove old paint, you may release lead dust or fumes. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to [www.epa.gov/lead](http://www.epa.gov/lead). In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

**Carbon Steel:** SSPC SP10, Sa 2.5, NACE No. 2 Blast to 1.5-2 mil (30-50 micron) anchor pattern

**Aluminum or Stainless Steel:** Blast to 1.5 mil (30 micron) anchor pattern

**Galvanized Steel:** SPC SP7, NACE No. 4 Brush blast to 0.5 mil (12 micron) anchor pattern

**Primers:** Carbon steel shall use epoxy or zinc rich epoxy at 2-3 mil (50-75 micron) thickness. Inorganic zinc primers may also be used at 2-3 mil (50-75 micron) thickness. Site conditions may require the use of an epoxy tie coat over zinc rich primers. Follow the primer manufacturers' application instructions. PPG shall approve all primers under Pitt-Char XP coating.

## APPLICATION INFORMATION

Apply only when air and surface temperatures are above 50°F (10°C) and surface temperature is at least 5°F (3°C) above the dew point. Curing is retarded below 50°F (10°C). Application at slightly lower temperatures is possible when dew point criteria are met and the temperature is rising above 50°F such as morning applications. Plural component heated spray (recommended), thinned airless spray or trowel application can be used for repairs and small projects. Contact PPG Industries for approved application equipment suppliers.

**Mixed Parts by Volume:** Component A, 97-194(M) 2.33      Component B, 97-195(M) 1.00

**Mixed Parts by Weight:** Component A, 97-194(M) 3.25      Component B, 97-195(M) 1.00

**Plural airless heated equipment:** uses heat and high pressure to apply at 100% solids. This is the preferred method of application providing the best production rates and application appearance for Pitt-Char XP coating projects when used by skilled certified applicators. The equipment can be skid or wheeled cart mounted with 100ft (33 m) of dual feed hoses, static mixer and ½" (12.7mm) diameter X 15 foot (4.6 m) whip. Typical reversible tip sizes are 0.033 - 0.045". The coating shall be heated to 120-140°F (49-60°C) prior to metering in the pumps. This can be accomplished using a thermostatically controlled hotbox or in the pump holding tanks if so equipped. Consult the pump manufacturer for power and clean, dry air requirements.

**Airless Thinned Spray:** 68:1 minimum single component unit on a 5 gallon ram cart. ¾" (19mm) diameter x 50 ft (15.2 m) fluid hose plus ½" (12.7mm) diameter X 15 foot (4.6 m) whip. Pitt-Char XP mastic fill kits (97-194M, 97-195M) shall be pre thinned using PM Acetate at 7-10% by volume and mixed using a rectangular paddle mixer prior to loading into the pump. Film builds will be less than plural applications depending on conditions and thinner amount. Typical tip sizes are .033 - .035". Mixing is easier when coating is 70-90°F (21-32°C). Consult the pump manufacturer for clean, dry air requirements.

**Hand trowel:** May be used for small projects and repairs where the use of a spray pump is not practical. Use the mastic filled kits 97-194M and 97-195M either whole or weigh smaller amounts in a 3.25:1.00 A to B ratio and mix with 3-5% PM Acetate using a rectangular paddle mixer. Mixing is easier when coating is 70-90°F (21-32°C). Apply with cement trowels in successive coats to achieve desired film build. In all cases the coating will be smoothed as required per approved surface finish using trowels and short nap rollers wetted with minimal amount of PM Acetate to prevent sticking to the coating. Refer to Pitt-Char XP Application Manual for additional application information.

**Mesh Application:** Pitt-Char XP Coating uses various types of reinforcing mesh during application. Galvanized steel or fabric type meshes are applied prior to or embedded during application. The fire scenario will dictate the type of mesh approved and the overlap required (fabric mesh). Consult the current Pitt-Char XP Application Manual or your PPG technical representative for details.

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**APPLICATION INFORMATION (continued)****Ambient Conditions:** Minimum air temperature: 50°F (10°C)**Steel temperature:** Steel shall be minimum 5°F (3°C) above the dew point at site.**Applicators:** Pitt-Char XP Coating can only be applied by PPG certified trained contractors.**Thinner & Percent:** Propyleneglycol monomethylether Acetate (PM Acetate) is recommended for solvent thinning and as a rolling solvent. CAS # 108-65-6.**Top Coating:** Pitt-Char XP Coating is an epoxy coating and will chalk and color fade over time with exposure. This will not affect the fire performance. If chalking is not desired or where high humidity or areas susceptible to periodic standing water are present PPG recommends an epoxy and/or urethane topcoat. Offshore projects will require top coating with an approved system depending on exposure. Pitt-Char XP Coating is not recommended for immersion service. Please consult PPG Industries for a top coat system for your project needs.

PPG Architectural Finishes, Inc. believes the technical data presented is currently accurate; however, no guarantee of accuracy, comprehensiveness, or performance is given or implied. Improvements in coatings technology may cause future technical data to vary from what is in this bulletin. For complete, up-to-date technical information, visit our web site or call 1-800-441-9695.



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