Permite

Engineered Chemical Coatings Since 1921

high performance coatings and linings

PERMOX-CTF™

Ceramic Novolac Epoxy Lining

DESCRIPTION: Permox-CTF™ is a two-component amine-cured ceramic novolac epoxy. It is self-priming and may be applied to produce thick films up to 60 mils dry in a single coat, where required. When used in a shop environment, Permox-CTF™ provides ease of application, outstanding adhesion, and recoat times as short as two hours.

ADVANTAGES: Permox-CTF™ is free from both coal-tar and hazardous air pollutants, and is compatible with conventional cathodic protection.

USES: Permox-CTF™ is specifically formulated for use as an interior lining for the protection of ductile iron pipe and fittings for severe sewer service. The high performance epoxy novolac polyamine resin and ceramic pigmentation combine to produce a very tight, compact film with excellent abrasion and chemical resistance. This high packing and density also provides superior coverage of surface profile irregularities thus producing holiday-free linings at lower film build when compared to coal-tar epoxies. The ceramic pigmentation is structured by various grades to produce a highly packed, dense lining which yields 0.0 perms when tested for six (6) weeks per ASTM E 96-66, procedure A.

SURFACE PREPARATION: All pipe and fittings shall be delivered to the application facility without cement or asphalt lining or any other lining on the interior surface. Total removal of old linings is generally not possible nor cost effective; therefore, the entire interior of the DIP and fittings shall be as cast without any lining material prior to application of Permox-CTF™.

All surface preparation shall be in strict accordance per NAPF 500-03-04, utilizing manufacturer's published "PERMOX-CTF™ Blast Matrix (Single 20 ft. Length Ductile Iron Pipe)."

VOC: Less than 0.20 lbs per gallon

COLORS: Red and SP Green.

SUGGESTED FILM THICKNESS: 40 mils nominal.

VOLUME SOLIDS: 97% ± 2%

THEORETICAL COVERAGE: 1555 sq. ft. per gallon @ 1 mil.

NUMBER OF COMPONENTS: Two

MIXING RATIO: 2 parts base to 1 part activator by volume.

THINNING: None required.

POT LIFE: 30 minutes @ 77° F

APPLICATION PARAMETERS: Surface temperature 50° F min. – 135° F max. Air temperature at least 5° F above dew point and rising.

DRY TIME: To touch, 2 to 4 hrs. @ 77° F; full cure 7 days @ 77° F

SERVICE TEMPERATURE: Up to 300° F Dry; up to 180° F Wet depending upon service.

RECOAT: 7 days @ 77° F

CLEAN-UP: R76 Reducer.

PACKAGING: 50-Gallon Drums, 5-Gallon Pails.

SHELF LIFE: 12 months in unopened containers.

DO NOT STORE ABOVE 120° F.

(Continued)

Manufacturing and Executive Offices:
5239 BRER RABBIT ROAD • STONE MOUNTAIN (ATLANTA), GEORGIA 30083-1317
Phone: (404) 292-4842 http://www.permitepaints.com FAX: (404) 296-4825

SURFACE PREPARATION (continued):

- Pre-Blast Cleaning consult NAPF 500-03-01
- Blast Cleaning specification is per NAPF 500-03-04

NAPF 500-03 dated 2/14/2006 is published by:
National Association of Pipe Fabricators, Inc.
1901 N. W. 161st Street
Edmond, OK 73013

A copy of this specification may be obtained at http://www.napf.com/

Blast Media: The use of an angular or blocky shaped abrasive, such as silicon carbide or aluminum oxide is required.

Post Blast: Complete removal of blast media and left over debris is an essential part of the cleaning process. Lining should be applied within 12 hours after blasting. Any areas found to have rust bloom prior to application must be re-blasted.

APPLICATION: Permox-CTF™ may only be applied by approved applicators certified by the manufacturer as stated in the manufacturer's publication, "Surface Preparation, Application, and Inspection of **Permox-CTF™ Ceramic Novolac Epoxy Lining** on Ductile Iron Pipe and Fittings."

Permox-CTF™ may only be applied by heated plural-component airless spray equipment with two in-line SS static mixers to insure thorough mixing of both components.

INSPECTION: High Voltage Spark testing is required. Generally NACE SP0188-2006 Section 4 Table 1 should be used for determining applicable voltage for a given film thickness, however, this specification was written for steel substrates. Due to the nature and manufacturing process of ductile iron, the irregularities of the surface and the prepared surface profile, the recommended voltages found in NACE SP0188-2006 Section 4 Table 1 are not applicable and could cause damage due to excessive voltage. Our recommended voltage to use on all ductile iron pipe and fittings follows known industry practice which is 2500 volts. All DIP and fittings must be checked for proper dry film thickness requirements using a properly calibrated magnetic film thickness gage as outlined in SSPC-PA-2 before any high voltage testing can be done on the applied lining.