SIP Industries

Quality Manufacturers Since 1960

FUSION BONDED EPOXY (FBE) COATING FOR UTILITY FITTINGS

General Specifications

Features & Benefits : FBE's excellent adhesion to fittings provides a low friction surface along with superior long term corrosion resistance, resistance to cathodic disbondment, and protection operating at moderate temperatures.

Specifications : ANSI/AWWA C116/A21.16,

Approvals : NSF/ANSI 61 & NSF/ANSI 372

Physical Properties :

Color	:	Red Oxide
Specific Gravity	:	1.40 ± 0.05
Dry Film Thickness	:	12 - 16 mils

Substrate Preparation : Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface preparation treatments to ensure optimum adhesion and coating performance properties. Grit blasting is performed to achieve the recommended anchor profile and provides a optimum adhesion.

Film Properties:

Test	Method	Conditions	Result
Pencil Hardness	ASTM D3363		Pass 4H
Gloss 60°	ASTM D523		70-85
Direct Impact	ASTM D2794		40 in-lbs min.
Humidity Resistance	ASTM D2247	1000 Hours at 100°F	No blistering or rusting
Adhesion	ASTM D3359 Method A	X-Cut & Tape	5A
Adhesion	ASTM D3359 Method B	Crosshatch & Tape	5B
Abraison Resistance	ASTM D4060	CS-17 Wheels, 1000 Cycles, 1kg Load	32 mg loss
Salt Spray	ASTM B117	1000 hours	No blisters or face rust No scoreline creepage
Water Resistance	AWWA C550	90 Day Immersion @ 70°C (158°F)	Pass
Weather Resistance	ASTM G154	UVA-340 Cycle 4 hours @ 60°C 4 hours Condensation @ 50°C	Chalks after 200 hours exposure

Chemical Resistance:

Immersion Environments		Splash & Spillage Environments
Aliphatic Hydrocarbons	Kerosene	Aromatic Hydrocarbons
Calcium Carbonate (saturated solution)	Magnesium Sulfate (saturated solution)	Butanol
Calcium Chloride (10% solution)	Motor Oil	Ethanol
Calcium Hydroxide (10% solution)	Potassium Acetate (saturated solution)	Hydrochloric Acid (5% solution)
Calcium Sulfate (saturated solution)	Salt Water	Isopropyl Alcohol
Diesel Fuel	Soap Solutions	Methanol
Distilled Water	Sodium Chloride (5% solution)	Sulfuric Acid (5% solution)
Fresh Water	Sodium Hydroxide (5% solution)	Toluene
Fuel Oil	Sodium Nitrate (10% solution)	Xylene
Gasoline (unleaded)	Trisodium Phosphate (5% solution)	
Hexane		

These recommendations are intended as a guide only, and unless noted, temperatures are ambient.
For compatibility with fluids not shown here, consult SIP Industries for more information.

Handling : Care should be taken not to incur dents or scraches to the FBE coating while handling the fitting.

Note : FBE should not be stored in direct sunlight, over exposure can show UV degradation. Long-term sunlight exposure should be avoided.

For touch-up and repairs, please contact SIP Industries for recomendations
Please refer to our web page www.sipindustries.com for up to date product data and technical advisories

8876 Gulf Freeway - Suite 500 - Houston, TX 77017 | Phone: 713-923-6111 | Fax: 713-923-6114 | www.sipindustries.com | sales@sipindustries.com