

APPLICATION INFORMATION

(Continued)

APPLICATION PRECAUTIONS: Do not attempt application when temperatures are below 50°F (10°C) or if temperature of the concrete substrate is less than 5°F (3°C) above the dew point. The approximate dew point can be calculated from the ambient temperature and relative humidity. See the chart below for making approximate dew point calculations.

APPROXIMATE DEW POINT CALCULATIONS						
Rel Hum %	Ambient Temperature, °F (°C)					
	50 (10)	60 (16)	70 (21)	80 (27)	90 (32)	100 (38)
90	47 (9)	57 (14)	67 (19)	77 (25)	87 (31)	97 (36)
85	45 (7)	55 (13)	65 (18)	75 (24)	84 (29)	95 (35)
80	44 (7)	54 (12)	63 (17)	73 (23)	82 (28)	93 (34)
75	42 (6)	52 (11)	62 (17)	71 (22)	80 (27)	91 (33)
70	40 (4)	50 (10)	60 (16)	69 (21)	78 (26)	88 (31)
65	38 (3)	48 (9)	57 (14)	67 (19)	76 (24)	86 (30)
60	36 (2)	46 (8)	55 (13)	65 (18)	74 (23)	83 (28)
55	34 (1)	43 (6)	53 (12)	62 (17)	71 (22)	80 (27)
50	31 (-5)	41 (5)	50 (10)	59 (15)	69 (21)	78 (26)

COVERAGE RATE: On average concrete surfaces one-gallon (3.79 liters) should cover 160 square feet (14.9 m²).

CURING: Under typical conditions, the coated surface will cure enough for light foot traffic in 24 hours, light loading in 2 days. It will continue to cure for a period of 7 days.

STORAGE: Unopened containers have a shelf life of one year provided they are stored in a dry location and protected from temperature extremes. The activator component can crystallize or gel in freezing temperatures; if this occurs it will reliquify when raised to application temperature.

CLEAN-UP: Use a 50%/50% mixture of MIBK and butyl acetate or a 50%/50% mixture of xylene and either MEK or MIBK for clean-up. For cleaning hands or other skin surfaces use denatured alcohol, preferably ethanol. Consult MSDS for all cleaning materials before use.

ADDITIONAL INFORMATION: For additional information or recommendations, write: Southwestern Petroleum Corporation, P.O. Box 961005, Fort Worth, Texas 76161-0005; Southwestern Petroleum Canada Ltd., 87 West Drive, Brampton, Ontario, Canada L6T 2J6; or N. V. Southwestern Petroleum Europe S.A., Industrieweg 6, B-2390 Oostmalle, Belgium.

SAFETY PRECAUTIONS

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wear protective goggles, gloves and clothing. Avoid prolonged breathing of vapors. Use with adequate ventilation or approved respirators in confined areas. Do not take internally. Do not transfer to unlabeled or breakable containers. Use only for purposes intended. Keep out of reach of children.

EFFECTS OF OVEREXPOSURE:

Contact with eyes or prolonged or repeated contact with skin can cause allergic reaction, irritation and/or inflammation. Prolonged breathing of vapors can cause respiratory difficulty, dizziness, headache, nausea, irritation of nose or throat, tremors, paralysis, diarrhea, vasodilation, drowsiness, fatigue, pneumonitis, pulmonary edema or central nervous system depression. Ingestion can cause symptoms similar to inhalation; aspiration into lungs can cause serious injury or death.

FIRST AID PROCEDURES: Eye contact - Flush with water for 15 minutes. If pain or redness persists seek medical attention immediately. Skin Contact - Wash with soap and water wiping off excess material. If irritation persists, seek medical attention. Inhalation - Remove to fresh air. If breathing difficulty persists, give oxygen or resuscitate and SEEK MEDICAL ATTENTION IMMEDIATELY. Ingestion of Resin - If large amounts are ingested, induce vomiting if conscious. SEEK MEDICAL ATTENTION IMMEDIATELY. Ingestion of Activator - Give generous amounts of water. Do NOT induce vomiting. If vomiting occurs, keep head below hips to prevent aspiration. SEEK MEDICAL ATTENTION IMMEDIATELY.

PHYSICAL EMERGENCY PROCEDURES: If ignited, extinguish with CO₂ or dry chemicals. Water or foam may cause frothing. Water may be used to keep containers cool or flush spills away from area of involvement.

Consult Material Safety Data Sheet (MSDS) for this product or call Southwestern Petroleum Corporation at (817) 332-2336 for further health and safety information.

ULTRAGUARD EPOXY COATING

DESCRIPTION AND PURPOSE:

UltraGuard Epoxy Coating is a high performance epoxy coating formulated for use on interior concrete floors and other interior concrete surfaces. Used in combination with UltraGuard Epoxy Primer, it provides superior impact and abrasion resistance and resistance to a wide range of common commercial and industrial chemicals. It is suitable for protection, repair and beautification of concrete floors, sumps, secondary containment areas, man hole shafts, concrete tanks, loading docks, production areas, equipment rooms, kitchens, food processing plant floors, warehouses, equipment rooms, hangers, maintenance areas, power plants, clean rooms and many other interior concrete surfaces. It is available in three colors ... light gray, dark gray and rust red.

Note: Can also be used in exterior applications where color retention and gloss of finish is not a performance consideration; these types of applications include cooling tower sumps, waste water treatment aeration pools, exterior secondary containment basins and many other uses. In such applications, UltraGuard Epoxy Coating and Primer will protect concrete from physical and chemical damage. Color and gloss retention can be improved in exterior applications with a top finish of a compatible UV resistant acrylic or polyurethane sealer.

OUTSTANDING FEATURES:

- Advanced short chain, tight molecular novolac epoxy resins provide superior performance
- 100% solids formulation provides performance superior to water base or solvent epoxy paints
- Excellent resistance to alkalis, acids, solvents, bleach and a wide range of other common commercial & industrial chemicals
- Special vulcanized polymer provides improved impact resistance and reduces brittleness characteristic of other epoxy finishes
- Superior impact & abrasion resistance
- High temperature performance up to 212°F (100°C)
- Chemically "cross-linked" bonding provides superior epoxy to epoxy bond strength ... result is greater than 3200 psi pull off adhesion to primed surface and superior resistance to delamination caused by expansion and contraction of substrate
- Outstanding compressive, flexural and tensile strength mean long service life
- No solvents or solvent blistering
- Self-leveling, high build mixture fills small fissures and dings improves looks and maintainability of worn concrete surfaces
- Zero VOC, environmentally friendly formulation
- Versatile ... exceptional protection for protection of almost any interior concrete surface
- Safe ...no special gear required for application
- No harmful odor
- Available in light gray, dark gray and rust red



GENERAL DATA:

TYPICAL PHYSICAL PROPERTIES

Specific Gravity, Component A (Resin)	1.35
Specific Gravity, Component B (Activator)	0.90
Specific Gravity, Blended Product	1.24
Unit Weight, Component A (Resin), lb/gal (kg/liter)	11.27 (1.35)
Unit Weight, Component B (Activator), lb/gal (kg/liter)	7.51 (0.90)
Unit Weight, Blended Product, lb/gal (kg/liter)	10.33 (1.24)
Drying Time @70°F (21°C), recoat/overlap window, hours, approx	24
Drying Time @70°F (21°C), light loading, days, approx	2
Drying Time @70°F (21°C), full cure, days, approx	7
Pot Life @72°F (24°C), hours, approx	2.5
Pot Life @92°F (33°C), hours, approx	1
Flash Point, °F (°C)	>250 (121)
Percent Solids	100.0
Volatile Organic Compounds (VOC), grams/liter	0.0
Dry Film Thickness, 1 gal/100 ft ² , mil	16
Dry Film Thickness, 1 liter/m ² , mm	1
Color	Light Gray, Dark Gray or Rust Red
Odor	Mild Chemical

TYPICAL PERFORMANCE PROPERTIES

Elongation, %, @ 3 mils	12
Compressive Strength, psi (ASTM D-695-82)	8200
Flexural Strength, psi (ASTM D-790-82)	4400
Tensile Strength, psi (ASTM D-638-82)	2300
Adhesion, PSI minimum (ASTM D-4541 Pull Off Test)	3200
Abrasion Resistance (ASTM D4060-90)	Pass
Impact Resistance (ASTM D2794-92)	156
Shore D Hardness (ASTM D2240-91)	80
Dielectric Strength, Break Down Voltage	30
Dielectric Strength, Volts Per Mil (ASTM D149-91)	684
Temperature Limit, Dry Service, °F (°C)	212 (100)
Temperature Limit, Spill/Splash Service, °F (°C)	175 (79)
Storage Stability	1 Year

TYPICAL CHEMICAL PROPERTIES

Non Volatile, % wt (ASTM D-4479, 8.2)	100
Volatile, % wt (ASTM D-4479, 8.2)	0
Chemical Resistance	See Chart Below*

Acetic Acid 10%	G	Carbon Dioxide	E	Furfuryl Alcohol	T	N Octyl Alcohol	S
Acetic Acid 33%	NR	Carbon Tetrachloride	S	Gasoline	E	Oils Mineral	E
Aluminum Bromide	E	Castor Oil	E	Glycerine	E	Oils Vegetable	E
Aluminum Chloride	E	Cellosolve Acetate	S	Grape Juice	E	Oxalic Acid	S
Aluminum Fluoride	E	Chlorine Gas (Dry & Wet)	T	Green Liquor	E	Perchloric Acid	T
Aluminum Hydroxide	E	Chlorobutane	S	Heptane	E	Phenol 95%	S
Aluminum Nitrate	E	Chloroform	S	Hexane	E	Phosphoric Acid 15%	E
Aluminum Sulfate	E	Chlorosulfuric Acid	T	Hydrazine	E	Phosphoric Acid 50%	E
Ammonia	S	Chromic Acid 10%	S	Hydrobromic Acid 20%	S	Phosphoric Acid 80%	G
Ammonia Bisulfite	E	Chromic Acid 50%	T	Hydrochloric Acid 25%	E	Potassium Acetate	G
Ammonium Chloride	E	Citric Acid	E	Hydrochloric Acid 35%	G	Potassium Chloride	E
Ammonium Fluoride	E	Copper Chloride	E	Hydrofluoric 25%	T	Potassium Hydroxide 50%	E
Ammonium Hydroxide	E	Copper Cyanide	E	Hydrofluoric 49%	NR	Potassium Nitrate	E
Ammonium Lauryl Sulfate	E	Copper Nitrate	S	Hydrogen Peroxide	S	Potassium Sulfate	E
Ammonium Nitrate	E	Copper Sulfate	E	Hydrogen Sulfide Gas	E	Propylene Glycol	E
Ammonium Persulfate	E	Corn Oil	E	Isopropyl Acetate	G	Salicylic Acid	G
Ammonium Sulfide	E	Cresol	T	Isopropyl Alcohol	S	Silver Nitrate	E
Amyl Alcohol	S	Cresylic Acid	T	Jet Fuel	S	Sodium Bisulfite	E
Barium Chloride	E	Crude Oil (Sour)	E	Kerosene	E	Sodium Chlorite	E
Barium Hydroxide	E	Cumene	S	Lactic Acid	S	Sodium Hydroxide 50%	E
Barium Sulfide	E	Cyclohexane	S	Lauryl Chloride	E	Sodium Phosphate	E
Beer	E	Cyclohexanone	S	Lead Acetate	E	Stannous Chloride	E
Benzene	S	Dibutyl Phthalate	E	Lithium Bromide	E	Styrene	G
Benzoic Acid	E	Dichloroacetic Acid	T	Lithium Hydroxide	E	Sulfite Liquor	E
Benzyl Chloride	S	Dichlorobenzene	S	Magnesium Bisulfite	E	Sulfuric Acid 10%	E
Black Liquor	E	Diesel Fuel	E	Magnesium Carbonate	E	Sulfuric Acid 50%	E
Bleach 20%	E	Diethylamine	T	Magnesium Chloride	E	Sulfuric Acid 98%	S
Boric Acid	E	Dimethyl Aniline	S	Magnesium Hydroxide	E	Tannic Acid	E
Brine	E	Ethoxy Ethanol	G	Mercuric Chloride	E	Tetrachloro Ethane	S
Butanol	S	Ethyl Acetate	G	Methanol	G	Titanium Tetrachloride	S
Butyl Acetate	G	Ethyl Alcohol	G	Methyamyl Alcohol	S	Toluene	G
Butyl Acrylate	S	Ethyl Chloride	NR	Methylene Chloride	T	Tricrossyl Phosphate	E
Butyl Cellosolve Acetate	G	Ethylene Dichloride	NR	Methyl Ethyl Ketone	S	Triethylamine	S
Cadmium Chloride	E	Ethylene Glycol	E	Milk	E	Turpentine	E
Cadmium Plating Cyanide	E	Ethyl Sulfate	E	Mineral Spirits	E	Vinegar	S
Calcium Bisulfite	E	Fatty Acids	E	Muriatic Acid	E	Water (DI)	E
Calcium Chloride	E	Ferric Chloride	E	Naphtha	E	White Liquor	E
Calcium Hydroxide	E	Ferric Nitrate	E	Nitric Acid 10%	G	Xylene	T
Calcium Hypochlorite	S	Ferrous Chloride	E	Nitric Acid 25%	T	Zinc Chloride	E
Calcium Nitrate	E	Fluoboric Acid	S	Nitric Acid 50%	T		
Calcium Sulfate	E	Fuel Oil	E	Nitric Acid 98%	NR		

* NOTE: E=Excellent; G=Good; S=Secondary Containment; T=Temporary; NR=Not Recommended

APPLICATION INFORMATION:

IMPORTANT: UltraGuard Epoxy Coating is a two-part, 100% solids epoxy coating, designed to protect and beautify both new and properly prepared old interior concrete floors and other interior concrete surfaces which have been properly prepared and primed with UltraGuard Epoxy Primer.

PREPARATION: *UltraGuard Epoxy Coating is NOT recommended for direct application to concrete surfaces. Surfaces must be properly prepared and then primed with UltraGuard Epoxy Primer. For complete instructions on required surface preparation and application of UltraGuard Epoxy Primer, please consult the UltraGuard Epoxy Primer Product Data Bulletin and/or the Application Instructions for SWEPCO UltraGuard Epoxy Coating Kit included in case shipments.*

UltraGuard Epoxy Coating can be installed over UltraGuard Epoxy Primer as soon as the primer has cured enough for light foot traffic. Normally this will occur within 5-12 hours and this is the preferred window for installing the coating. For best adhesion, application of the coating should not normally be delayed longer than 48 hours. If the previous coat has cured beyond 48 hours, it is recommended that the surface be lightly sanded and cleaned with alcohol, tescol or MEK before applying the coating.

MIXING: This is a two-part product. PROPER MIXING IS ABSOLUTELY ESSENTIAL TO LONG TERM PERFORMANCE OF THIS PRODUCT. If the product is not mixed properly, it will NOT work properly. Do not mix partial kits. Mix only one gallon (3.79 liters) at a time. Due to the high viscosity of the product manual mixing is NOT recommended. All mixing should be performed with a 400-600 rpm power drill and the mixing attachment provided. Use low speed and keep mixing blade down in the product to avoid entrapping air in the mixture. Start by pre-mixing Component A -- Coating Resin to compensate for any settling which may have occurred. Then empty the entire contents of Component B -- Coating Activator into Component A -- Coating Resin and mix for a minimum of three minutes after a uniform appearance is first obtained. Pay special attention to the bottom and sides of the container to insure complete mixing.

POT LIFE: Because chemical curing begins as soon as the components are mixed, the product must be applied before its "pot life" expires. Pot life

becomes shorter as temperature increases. UltraGuard Epoxy Coating has a pot life of approximately 2.5 hours at 72°F (24°C) and one hour at 92°F (33°C). Pot life can be as short as 30 minutes as temperatures rise above 92°F (33°C).

Do not keep the mixed product in the original container unless immediate use is planned. As soon as a container is mixed, transfer it to a paint tray, clean plastic mortar box or tub or empty it on the surface. Try to keep depth of the product below 3/8-inch (9.5mm). Leaving it in the mixing pail can shorten pot life due to the heat generated as curing begins. To lengthen pot life during slow application conditions or high ambient temperatures, place the paint tray on a bed of ice without getting ice or water in the mixed product.

APPLICATION: Apply by spreading with a notched squeegee and immediately back rolling with a short nap paint roller to insure uniform coverage and absence of pin holes. The product will self level to a smooth surface, filling minor defects, fissures and dings.

MULTI-DAY APPLICATIONS -- For optimal adhesion and maintenance of a continuous protective film, adjacent sections should be applied within 24 hours. If this is not possible, it is recommended that the overlapping seams be sanded and cleaned with alcohol, tescol or MEK before continuing application.

MULTIPLE COAT APPLICATIONS -- Multiple coats can be applied for heavy service applications. For best adhesion and service, subsequent coats should be applied within 24 hours of application of the underlying coat. If the previous coat has cured beyond 48 hours, it is recommended that the overlapping seams be lightly sanded and cleaned with alcohol, tescol or MEK before applying subsequent coats. However, lab testing has revealed adhesion to fully cured, non-abraded clean surface exceeds 2000 PSI.

CREATION OF NON-SKID SURFACES -- Sand can be mixed into the coating before application to create a non-skid surface. Use ONLY clean, washed sand of approximately 70 mesh. Use about 1.6 pounds (.73 kg) per one-gallon (3.79 liter) pail of coating. Adding more will give a more abrasive texture which would be more difficult to keep clean. Adding less will provide lower non-skid characteristics but will be easier to keep clean. Aluminum oxide grit may be substituted for sand.