

PRODUCT MANUFACTURER

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GENERAL PRODUCT DESCRIPTION

LINE-X EPX Primer is a two component high build 100% solids epoxy resin supplied as clear coating. This product produces a gloss finish.

USES

Use as a primer. Suited for concrete applications where a universal epoxy primer is desired for use and installation in industrial work areas. Intended as a primer for polyaspartic floor coatings and polyurethane/polyurea elastomers.

PREPARATION

Prior to application, proper surface preparation is required. Surfaces must be clean, dry and in sound condition. Remove all oil, dust, grease, loose particles and rust. Degrease minor spots (3" in diameter or less) as necessary, using brake cleaner and a wire brush. Major wet oil and grease spots (3" in diameter or greater) need to be cleaned with an absorptive material and degreaser.

Diamond Grind (bare concrete): Results of grinding may vary depending on technique and the hardness of the concrete.

JOINTS: All non-moving joints (control joints) can be filled with a rigid joint compound such as MEND-X. Construction joints may need to be re-built and re-cut and then filled with rigid joint filler. Isolation or expansion joints must be filled with a flexible material designed for expansion and should not be coated over.

READ MATERIAL SAFETY DATA SHEET (MSDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

APPLICATION EQUIPMENT

- Protective equipment and clothing as called for in the MSDS.
- Jiffy® Mixer Blade model ES.
- Clean container to mix materials in.
- Low speed high torque drill motor.
- High quality short nap roller covers ¼ inch mohair.
- Application Squeegee or application trays.
- Vacuum equipment.

Tools Needed:

- 4" roller to cut-in
- 2" chip brush to cut-in where roller can't reach
- 24" smooth, red rubber blade squeegee
- 18" roller, ¼" nap for back roll
- 18" roller pan
- Mixing buckets
- Stir sticks
- Spiked shoes

INSPECTION AND APPLICATION

Caution! Follow all precautions and instructions prior to installation.

CHECK THE SUBSTRATE CONCRETE:

Substrate concrete must be free of curing membrane, silicate surface hardener, paint, or sealer and be structurally sound. If you suspect the concrete has been treated or sealed, prepare substrate for complete removal of treatment.

CHECK FOR MOISTURE: Concrete must be dry before applications of this floor coating. Test concrete for moisture vapor transmission (MVT) using calcium chloride testing ASTM F1869 or in-situ RH testing ASTM F2170. Do not exceed a maximum result of 3 pounds per 1000 sq. ft. over 24 hours or a value below 70% RH (internal concrete humidity).

EXCLUSION: Testing for MVT is critical, however it does not guarantee against future problems. If there is no vapor barrier or the vapor barrier is damaged, this can contribute to floor failure. Contamination to concrete from oils, chemicals, excessive salts or Alkali Silica Reaction (ASR) may also contribute to floor failure.



CHECK THE TEMPERATURE AND HUMIDITY:

During the application and cure of the coating, the substrate temperature, material temperature and room conditions should be maintained between 65°F (18°C) and 90°F (32°C). Relative Humidity (RH) should be limited to 30-80%. DO NOT apply coatings unless the floor temperature is more than five degree over the dew point.

APPLICATION**CONCRETE SUBSTRATE PREPARATION:**

Provide an anchor profile by grinding or shot-blasting the surface to an I.C.R.I standard CSP 2-3 (nearly smooth) profile. The relative hardness of the concrete must be determined in order to select the appropriate equipment and tooling necessary to achieve the correct Concrete Surface Profile. New concrete must be cured 28 days.

PRE-MIX: Stir all components at slow speed prior to premixing together. Use a Jiffy® ES mix blade attached to a slow speed drill (using a paint stick to mix is not adequate).

MIXING: Mix all components together for 2-3 minutes. Mix only enough material at one time not to exceed the pot life. Note: Once this material is opened and mixed it can't be resealed for later use.

APPLY: Apply EPX Primer to the floor surface using a notched squeegee or application tray. Back roll the wet coating using a ¼ inch nap mohair roller. Care should be taken to overlap and cross lap, but not over roll the coating introducing air to the surface. Thickness of material left on surface is dependent on material viscosity, pressure, angle, speed of applying as well as temperature of product and condition of slab.

COVERAGE RATE: Surface irregularities and porosity in the concrete may affect coverage rate. Be sure to plan accordingly as there may be a need for extra material to provide proper coverage. Material applied too heavy may blister or can be soft during curing. Too little material may produce a non-uniform look. The best practice is to measure and grind the floor to be sure of proper application rate.

RECOAT: Allow the coating to cure (dry) for a minimum 4-6 hours after application at 75°F (24°C) and 50% RH. Allow more time for low temperatures and higher humidity. Full coating properties may take up to 7 days to develop.

TECHNICAL SUPPORT: For application questions, please contact your LINE-X Regional Manager or call our Technical Support Hotline at 877-754-1613.

DISPOSAL: Dispose in accordance with federal, state, and local regulations.

APPLICATION CHARACTERISTICS**STORAGE/SHELF LIFE:**

Materials should be stored in original unopened containers indoors between 65°F (18°C) and 90°F (32°C) and at or below 50% RH.

Shelf Life for Un-opened containers 1 year from date of manufacture.

PACKAGING KITS/PART NUMBERS**Volume Mix Ratio: 2 Parts Resin: 1Part Curative EPX PRIMER**

Primer 3.00 gallons

EPX Primer Epoxy Resin

EPX Primer Curative

LIMITATIONS

Contamination and surface defects (fisheyes): If contaminates of oils, silicones, mold release agents and/or others are present, EPX Primer may fisheye or crawl away from the surface. Surface contaminates should be removed with a suitable detergent prior to application. Solvent cleaning of silicone contaminates may make the situation worse; please contact the Research and Development Laboratory for additional recommendations. EPX Primer may amber over time from UV exposure.

Pot Life

<u>Material Temperature</u>	<u>Time</u>
60°F (15°C)	30-40 min
75°F (24°C)	25 min
90°F (32°C)	15 min



Drying/Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

	Surface Temperatures		
	50-69°F (10-21°C)	70-89°F (21-32°C)	90-110°F (32-43°C)
Surface Dry	6-8 hours	4-6 hours	2-4 hours
Hard Film	12-24 hours	6-10 hours	4-6 hours
Recoat (min)	4-6 hours	4-6 hours	4-6 hours
Recoat (max)	16 hours	16 hours	16 hours
Full Cure	7 days	7 days	7 days

Process:

- Mix amount of EPX Primer that can be applied in the pot life window.
- Cut-in perimeter with 4" roller and 2" chip brush just ahead of applicator.
- Immediately pour a ribbon of EPX Primer on the leading edge of the cut-in and squeegee across area.
- Repeat pouring out a ribbon of product on the leading edge of applied product and squeegee until entire area is covered.
- Back roll in single directions across area.

RECOMMENDED COVERAGE

7-10 mils as a primer.

Primer Applications:

160 sq. ft. per gallon at 10 mils WFT.

3.9 sq. m. per liter at 254 microns.

One kit (3.00 gallons) of mixed EPX Primer will cover 680 sq. ft. (63.2 sq. m) at 7-10 mils WFT (178-254 microns).

ADVANTAGES

- No Odor
- High build application
- Excellent impact and abrasion resistance
- Seals concrete, protecting against dirt and spills
- Complies with VOC regulations for Industrial Maintenance Coatings in the Northeast region's Ozone Transport Commission (OTC) and California.

MATERIAL PROPERTIES*

Properties	Test Method	Results
Flash Point	ASTM D3278	≥215°F (102°C)
Volume Solids (mixed)	ASTM D2369	100%
Mixed Viscosity	ASTM D2196	400-700 cPs
Dry Time	ASTM D5895	Tack Free 4-6hr Dry 6-10hr Full Cure 7 days
VOC-Volatile Organic Compound	ASTM D3960	0 g/l

CURED PROPERTIES*

Properties	Test Method	Results
Abrasion Resistance Tabor CS-17, mg loss/1000 cycles/1000g mass	ASTM D4060	75mg
Coefficient of Friction- COF James Test	ASTM D2047	0.55 0.65 (w/MS-36)
Tensile Strength	ASTM D2370	12,000 psi
Adhesion to Concrete	ASTM D4541	541 psi concrete fail
Impact	ASTM D2794	40in. lbs Direct & Reverse
Hardness (Pencil)	ASTM DS3363	2H
Dry Film Thickness	at 15 mils WFT	15 mils

*Properties and results are based on laboratory testing at 72°F (22°C) %50 RH, theoretical calculations and estimates. Typical properties, as stated, are to be considered as representative of current production and should not be treated as specifications.



CHEMICAL RESISTANCE

LINE-X EPX PRIMER	1 Day	7 Day
ACIDS, INORGANIC		
10% Hydrochloric	E	E
30% Hydrochloric	F	P
10% Nitric	E	E
50% Phosphoric	G	F
37% Sulfuric	E	E
ACIDS, ORGANIC		
10% Acetic	G	F
10 % Citric	E	G
Oleic	E	E
ALKALIES		
10% Ammonium Hydroxide	E	E
50% Sodium Hydroxide	E	E
SOLVENTS		
Ethylene Glycol	G	G
Isopropanol	E	E
Methanol	P	P
d-Limonene	E	E
Jet Fuel	E	E
Gasoline	G	F
Mineral Spirits	E	E
Xylene	E	G
Methylene Chloride	P	P
MEK	P	P
PMA	G	G
MISCELLANEOUS		
20% Ammonium Nitrate	E	E
Brake Fluid	E	E
Bleach	E	E
Motor Oil	E	E
Skydrol®500B	E	E
Skydrol®LD4	E	E
20% Sodium Chloride	E	E
10% TSP	E	E

LEGEND (Based on spot testing after 14 days of cure)

- E = Excellent (not affected) – recommended
- F = Fair (moderate negative affect) – not recommended
- G = Good (limited negative affect) – short term exposure
- P = Poor (unsatisfactory) – no resistance to exposure

PRODUCT DISCLAIMER:

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user’s responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation. User assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and LINE-X makes no claim that these tests or any other tests accurately represent all environments.

