

Epoxy Systems'TM Product #870

65% Solids Epoxy Penetrating Sealer

GENERAL DESCRIPTION

ESITM Product #870 Epoxy Sealer is a two-component penetrating epoxy sealer (with very high solids) designed for superior protection of new concrete or for prolonging the serviceability of partially-deteriorated concrete. The sealer is a low to medium viscosity material and is capable of providing an effective membrane barrier to inhibit moisture migration and corrosive chemical penetration.

In the cured state ESITM Product #870 allows moisture vapor transmission; it seals off moisture entry but still allows the concrete to breath. When applied to concrete place and finished in accordance with standards defined in ACI 201 (Guide to Durable Concrete), Product #870 greatly improves wear resistance of the concrete surface, slows down the corrosion of reinforcing steel and adds many years' life to the structure. Product #850 has a solids content of 50% after curing. It may be applied to dry surfaces at temperatures of 40 degrees F. (0 degrees C) or above.

MAJOR USES

- Parking garage decks, and ramps
- Shop and warehouse floors
- Floors where food processing occurs
- Columns and beams
- Whenever new or old concrete must be protected from the effects of chloride ion penetration, free water, water-born contaminants, freezing and thawing, petroleum products, and abrasion.

HANDLING PROPERTIES

Mix Ratio:.....	50:50 by Volume
Color:.....	Clear/Amber (mixed)
Mixed Viscosity (@77 Degrees F).....	250-350 cps (mixed)
Gel Time.....	3-4 hour (after application)
Shelf Life: (@85 Degrees F Maximum Temp).....	1 Year
Pot Life.....	1.5-3 hours
Final Cure.....	7days

APPLICATION

SURFACE PREPARATION: Surface life of the sealer is primarily dependent upon good surface preparation. Sealer life will be extended by following these recommendations:

1. The concrete must be cleaned free of old existing coatings, oils, grease, dirt, and wax solutions.
2. Sandblast or water-blast surface to remove contamination, heavy laitance, sharp edges or protrusions, if there are any which could interfere with the uniform application of the sealer. Use of acids is not recommended.
3. Weld structural cracks with ESI™ Product #684; seal movable cracks with ESI™ Product #11 Control Joint Filler. Remove unsound existing patches and fill chuck holes and deteriorated areas with ESI™ #10 Mortar.
4. Remove all debris from working surfaces.
5. Allow all ESI™ products used in repair to fully cure before application of Penetrant Sealer.

MIXING PROCEDURES: Supplied as two-package system. Open Component "A" and agitate resin until evenly blended. Open Component "B" and pour entire contents into Component "B" into Component "A". Agitate the combined mixture with low speed power mixer (200-300 rpm) until one even color develops (2-3 minutes). Allow to set for 10-15 minutes depending on the temperature.

APPLICATION STEPS: Penetrant Sealer may be applied with roller, brush or airless spray. Ensure that the concrete surface is dry, moisture will interfere with product penetration. Two coats are required for most applications. Apply #850 evenly over area according to coverage requirements. Concrete surfaces will accept the sealer at different rates because of porosity, moisture content and other variations and this may result in discoloration or darkening of the finished surfaces.

Typically, One-coat application of penetrant sealer averages about 100 sq. ft. per gallon, per coat; however coverage per coat will vary with porosity, texture and surface and other variations. It is necessary to permit material to become tack-free before the section is open to use. Normally, sufficient evaporation occurs within 3-4 hours after application, at 75/F (23.8/C)

For skid resistance broadcast clean, dry sand at a rate of 1-2 lb. per square yard.

HANDLING PRECAUTIONS

Prolonged or repeated exposure may cause eye and skin irritation. Avoid contact with skin or eyes. If contact occurs, wash immediately with soap and water. Flush eyes immediately with water and contact physician. If used indoors, provide adequate ventilation. Use safety glasses, and wear protective rubber or polyethylene gloves. ESI™ #850 contains flammable solvents, so extra precautions should be taken in confined areas. Never allow open flame or sparks in area when #850 is being applied. Adequate ventilation must be provided when applying.

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