



# Epoxy.com Product #640

100% Solids Chemical and Heat Resistant Coating

## DESCRIPTION

Chemical & Heat Resistant Coating is a two component; highly cross linked Novolac, that is 100% solids. It can be brush, roll or airless spray applied coating designed to provide cavitation, corrosion and erosion resistance to concrete, metallic and nonmetallic surfaces. Epoxy.com **PRODUCT #640** acts as an inert barrier against extremely harsh environmental factors such as low and high PH, temperature extremes, dry and fluid particulate flow and corrosive chemical attack.

## USES

- ✦ FGD scrubber ducts
- ✦ Floor coating
- ✦ Condensers
- ✦ Tanks and vessels
- ✦ De-min concrete pads
- ✦ Heat exchangers
- ✦ Water boxes

## PHYSICAL PROPERTIES

Finish	High Gloss
Color	Gray
Specific Gravity	1.27
Pot Life	45 minutes ◆ 77°F
Dry Time	4 hours @ 77°F
Recommended Film Thickness	30 mils/min.; 40 mils/nominal; 45 mils/max.
Coverage Rate	One gallon covers approximately 53.4 square feet at 30 mils
Flash Point	Above 200°F

## CURED PROPERTIES

Compressive Strength (ASTM D-695/7 Days)	14,000 p.s.i.
Flexural Strength (ASTM D-790/7 Days)	13,000 p.s.i.
Tensile Strength (ASTM C-190/7 Days)	7,500 p.s.i.
Shear Strength (ASTM D-1002 Tensile: Steel to Steel)	2,300 p.s.i.
Operating Temperature	Wet: 300°F Dry: 400°F
PH Range	0.5-13.5

## CHEMICAL RESISTANT PROPERTIES

The following represents percent flexural strength retained after two weeks cure at 77°F followed by 30 days immersion in the chemical environment as described.

	@77°F	@ 140°F
45% Nitric Acid	100% + min.	100% + min.
25% Acetic Acid	100% + min.	100% + min.
35% Hydrochloric Acid	100% + min.	100% + min.
20% Sulfuric Acid	100% + min.	100% + min.
15% Sodium Hypochlorite	100%	97%
50% Potassium Hydroxide	100% + min.	100% + min.
30% Sodium Hydroxide	100% + min.	100% + min.
50% Sodium Hydroxide	99%	97%

The following standards may be used in assessing what activities can be carried out after an application of PRODUCT #640.

Temperature	75°F
Overcoating	2 to 4 hours
Movement/Light Stress	8 hours
Traffic Bearing	16 to 24 hours
Immersion/Full Chemical Exposure	5 days

Force cures may be used to either enhance chemical resistance or to allow the coating to be placed in service before 5 days. Allow a post cure of 12 to 24 hours before force curing.

## RECOMMENDED FORCE CURE SCHEDULE

Minimum 2 Hours @ 150°F  
 Minimum 4 Hours @ 200°F

**NOTE:** This product will cure well at temperatures as low as 40 - 45°F. However, additional curing time must be provided.

## SURFACE PREPARATION

**CONCRETE:** Surface must be clean and sound. Remove all dirt, laitance, grease curing compounds and other foreign matter by sandblasting, mechanical abrasion. If acid etching is used follow with abrasive or mechanical abrasion. Remove water and dust from all surfaces with an oil free blast, or vacuum, immediately prior to application. **STEEL:** Prior to sand blasting remove all grease, dirt and other contaminants from the surface. Grind sharp edges to a minimum radius of 1/8 inch. Remove all weld splatters. Sandblast to a white metal finish according to SSPC-SP-5-63 or NACE standard TM-01-70 with a minimum anchor profile of 3 mils.

## MIXING

Mix ratio is two parts by volume base (◆A◆) to one part by volume hardener (◆B◆).

## APPLICATION

PRODUCT #640 can be applied by brush, roller or airless spray equipment. PRODUCT #640 is designed to be spray applied at 10 to 15 mils per coat. Relative humidity during the coating process should be a maximum of 90% for application to commence.

A minimum of two coats is recommended. If the second coat is applied before the first coat cures, no surface preparation is required. Simply apply the second coat maintaining the required mils per coat. However, if the first coat has cured (when it is tack free), the first coat must be brush blasted prior to the second coat.

## CLEANING

Clean all equipment immediately after use with MEK or acetone.

## CAUTION

**WARNING!** A Component contains epoxy resin. DANGER! B Component contains alkaline amines; strong sensitizer. May cause skin sensitization or other allergic responses. Use with good ventilation, particularly if material is heated or sprayed. Prevent all contact with skin or eyes. Wear protective clothing, goggles, gloves and/or barrier creams. Keep container closed when not in use. Wash thoroughly after handling.

**FIRST AID:** In case of skin contact, immediately wash with soap and water. In case of eye contact, flush eyes with copious amounts of water for at least fifteen (15) minutes. Remove contaminated clothing and shoes. If irritation persists, seek medical attention. Wash clothing before reuse.

## **FOR INDUSTRIAL USE ONLY KEEP AWAY FROM CHILDREN**

For more information please contact:

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