

EpoxySystems' Product #642 Multifunctional Epoxy Coating/Adhesive

DESCRIPTION:

Product #642 Multifunctional Epoxy Coating/Adhesive is a two component, 100% solids, one coat trowel grade or grout pump applied protective coating designed to provide cavitation, erosion and corrosion resistance to metallic and non-metallic surfaces. **Product #642** acts as a barrier against extremely harsh environmental factors such as low and high PH, temperatures extremes, dry and fluid particulate flow and corrosive chemical attack.

USES:

PGD scrubber duct Tanks and vessels
De-min concrete pads Water boxes
Ball mill sumps Heat Exchangers

PHYSICAL PROPERTIES:

Finish Semi-gloss

Color Red (Black by Special Order)

Specific Gravity 1.6

Mixing Ratio 2 part "A" to 1 part "B"

Pot Life 30 Minutes ± @ 77°F

Dry Time 2 hours @ 77°F

Recommended Film Thickness 45 mils/min.; 60 mils/nominal

80 mils/maximum

Coverage Rate One gallon covers approximately 26.7 ft.² at 60 mils

Flash Point Above 200°F

CURED PROPERTIES:

Compressive Strength (ASTM D-695/7 days)	15,000 p.s.i.
Flexural Strength (ASTM D-790/7 days)	13,500 p.s.i.
Tensile Strength (ASTM C-190/7 days)	8,000 p.s.i.
Shear Strength(ASTM D-1002 Tensile: Steel to Steel)	2,450 p.s.i.
Operating Temperature Wet:	300°F
Dry:	400°F
PH Range	0.5 to 13.5

MIXING:

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

CLEANING: Clean all equipment immediately after use with MEK or acetone.

CURE CYCLE:

The following standards may be used in assessing what activities can be carried out after an application of **Product #642.**

Temperature 75°F

Overcoating 1 to 2 hours Movement/Light Stress 8 hours

Traffic Bearing 16 to 24 hours

Immersion/Full Chemical Exposure 5 days

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

RECOMMENDED FORCE CURE SCHEDULE

Minimum 2 hours @ 150°F Maximum 4 hours @ 200°F

<u>NOTE:</u> this product will cure well at temperatures as low as 40-45 °F. However, additional curing time must be provided.

CHEMICAL RESISTANCE PROPERTIES:

ACIDS

Hydrochloric 10% to 35% Sulfuric 10% to 98% Nitric 45%

ALKALIES

Ammonia 10%

Sodium Hydroxide 10% to 50%

SALTS

Sodium Chloride Excellent
Calcium Chloride Excellent

SOLVENTS

Alcohols, acetone, toluol, methyl cellulose, methanol.

SURFACE PREPARATION:

Remove all grease, dirt and other contaminants from surface prior to sandblasting. Grind sharp edges to a radius of 1/8". 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.

APPLICATION:

Product#642 can be applied by trowel or grout pump. **Product #642** is designed as a one coat system (minimum 45 mils, maximum 80 mils). Relative humidity during the coating process should be 90% or less. Substrate temperature should be a minimum of 60°F for application to commence. If a second coat is needed before the first coat cures, no surface preparation is needed. Simply apply the second coat maintaining the required standards. However, if the first coat has cured (when it is tack free) the first coat must be brush blasted prior to the second coat.

CAUTION:

Society of the Plastics Industry (SPI) Classification and Warning for "A" Components: **FOR INDUSTRIAL USE ONLY! WARNING!** May cause skin sensitization or other allergic responses. Avoid inhalation of vapor. Use good ventilation, particularly if the material is heated or sprayed. prevent all contact with skin or eyes. Wear protective clothing, goggles, gloves and/or barrier creams. If contact with skin occurs, wash immediately with soap and water. In case of contact with eyes, flush with water and contact a physician.

Manufacturing Chemists Association (MCA) Warning for "B" Components: **CAUTION! DANGER!** Causes severe burns. Contains alkaline amines; strong sensitizer. Do not get into eyes, on skin or clothing. Avoid breathing vapor. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. **FIRST AID!** In cases of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician. Wear protective clothing, goggles, gloves and/or barrier creams.

FOR INDUSTRIAL USE ONLY! KEEP AWAY FROM CHILDREN!

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