RUST-OLEUM® Concrete Protection Systems

EPOXY GROUT GP

DESCRIPTION AND USES

Epoxy Grout GP is used in setting machinery foundations, footers, anchor bolt sleeves, and in other applications where reciprocating or rotating equipment is installed, or where heavy load bearing capacity is required. Excellent bond to concrete along with high compressive, flexural and tensile strength make Epoxy Grout GP ideally suited to resist vibration, high torque loads and other physical stresses.

Epoxy Grout GP is a three component formulation of epoxy resin, amine activator, and a formulated low dusting aggregate.

This CPS Type II product is typically installed by factory trained contractors. Be sure you are fully aware of all application procedures and have all the required equipment available prior to beginning the installation of this product.

FEATURES AND BENEFITS

- Excellent bond strength: Epoxy Grout GP has excellent bond strength to both dry and damp concrete. The material to concrete bond exceeds the tensile strength of the concrete itself.
- Chemical Resistance: With chemical resistance equal to our OverKrete product. Epoxy Grout GP offers resistance to acids, alkalis, and solvents. Consult Rust-Oleum for recommendations. (For even better chemical resistance, Epoxy Grout CR may be used or Epoxy Grout GP may be top coated with Rust-Oleum (OverKote or OverKote Plus) toppings.
- Low exothermic cure: Virtually eliminates bond interface stresses.
- Minimum shutdown: Depending on ambient temperature, area can be returned to use within 12 to 24 hours, therefore reducing downtime. Scheduling problems caused by the slow cure of Portland cement grouts can often be avoided with the use of Epoxy Grout GP.
- Reduced labor: Epoxy Grout GP may be applied to damp concrete (with no standing water). It may also be easily top coated with other Rust-Oleum products within 24 hours with no additional surface preparation, thus reducing labor costs.
- Low dusting: Specially formulated aggregate reduces dusting during application providing a cleaner and safer work environment.

PACKAGING

Epoxy Grout GP is packaged in two kit sizes: 0.44 cubic feet and 1.75 cubic feet. Mixing ratios are shown on the product labels.

PRODUCTS

SKU	Description
237396	0.44 Cubic Foot Kit
237397	1.75 Cubic Foot Kit

TYPICAL APPLICATIONS

Physical abuse: Epoxy Grout GP is used in heavy industry to ensure accurate, sustained alignment of machinery, compressors and other equipment across a wide range of industries as well as for foundations for heavy stationary tanks, rails and towers. For improved aesthetics and chemical resistance, Epoxy Grout GP can be top coated with many of the OverKote series products.

Typical applications include:

Anchor bolts
Bearing plates
Compressors
Conveyor supports
Drive equipment
Cooling towers
Crushers
Engines
Generators
Pumps
Milling machines
Paper machines
Patching
Foundations
Turbines
Vessels and tanks
Rails

Typical industries include:

Pulp and paper
Petrochemical processing
Chemical processing
Power transmission
Metal refining/mining
Heavy manufacturing
Food and Beverage

Chemical abuse: Epoxy Grout GP may also be used to resurface those areas where the concrete has severely deteriorated from chemical exposure due to manufacture or storage of products.

PACKAGING

Epoxy Grout GP is available in two standard kit sizes:

The 0.44 cubic foot kit includes:

Part A (resin): (1) 1 gal bucket (0.74 U.S. gal.)

Part B (activator): (1) 1 qt. F-style can (0.26 U.S. gal.)

Part C (aggregate): (1) 50 lb. bags of a formulated, low dusting aggregate

All components are combined within a 6.5 gallon bucket. Aggregate is over-packed for mix design modification.

The 1.75 cubic foot kit includes:

Part A (resin): (1) 5 gal. bucket (2.98 U.S. gal.)

Part B (activator): (1) 1 gal F-style can (1.02 U.S. gal.)

Part C (aggregate): (4) 50 lbs. bags of a formulated, low dusting aggregate

PRODUCT APPLICATION

SURFACE PREPARATION

Preparation of the existing concrete is the most important step in the installation of Epoxy Grout GP. All grease, oil and other contamination must be removed. The surface of the concrete must be clean and rough to enable the epoxy based polymer to achieve maximum bond. Mechanical methods, including chipping, abrasive blasting, scabbling, and grinding are used to prepare the surface.

NEW CONCRETE: New concrete should be cured for a minimum of 10 days prior to application of Epoxy Grout GP. Curing compounds should be limited to those which can be removed by mechanical scarification of the surface.

MIXING

0.44 cubic foot kit: Pre-mix part A for 30 seconds using an electric drill with a Jiffler attachment. Pour the complete container of Part B activator into the Part A resin. Mix for 60 seconds to ensure complete mixing of Parts A and B. Pour the mixed liquids into the 6.5 gallon bucket and place on a bucket mixer. Start the mixer. Pour 1 bag of aggregate into the bucket mixer and mix until particles are completely coated by the liquids. Immediately pour the material into the void or form.

1.75 cubic feet kit: Pre-mix part A for 30 seconds using an electric drill with a Jiffler attachment. Pour the complete container of Part B activator into the Part A resin. Mix for 60 seconds to ensure complete mixing of Parts A and B. Pour the mixed liquids into the mortar mixer and start the mixer. Pour 4 bags of aggregate into the mortar mixer and mix until particles are completely coated by the liquids. Immediately pour the material into the void or form.

PRODUCT APPLICATION (cont.)

USE OF FORMS

Epoxy Grout GP is a high flow grout and often requires the use of forms. Forms are generally wood and must be of sufficient strength, properly braced, and water tight. You must use a release agent such as paste wax in order to remove the forms easily.

APPLICATION

Epoxy Grout GP is applied by pouring into an enclosed void in the substrate or a pre-assembled form. With temperatures ranging from 65-90°F, working time will be between 30 and 60 minutes. At temperatures above 90°F, working time will be shorter (possibly requiring more application personnel or smaller batches). The mortar is loosely placed at a thickness of 2 to 3 inches in one pour. If additional grout is needed, wait at least one hour between succeeding pours. The material can be leveled rapidly using standard hand tools for finishing concrete.

For more information on application procedures, refer to the Epoxy Grout Application Instructions Bulletin.

CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up; otherwise, stronger solvents such as methylene chloride will be necessary.

SAFETY

Epoxy Grout GP contains amine curing agents. Avoid skin contact. In case of eye contact or ingestion, contact a physician immediately. In case of skin sensitivity to these materials, use protective clothing and gloves.

MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets are available upon request. It is strongly recommended that they be read by all persons handling Epoxy Grout GP.

If there are any questions on the use of this product, please consult our technical service department.

PERFORMANCE CHARACTERISTICS

COMPRESSIVE STRENGTH
METHOD: ASTM C579
TYPICAL VALUE: 14,600 psi

FLEXURAL STRENGTH
METHOD: ASTM C580
TYPICAL VALUE: 5,550 psi

MODULUS OF ELASTICITY
METHOD: ASTM C580
TYPICAL VALUE: 2.16 x 106 psi

TENSILE STRENGTH
METHOD: ASTM C307
TYPICAL VALUE: 2,700 psi

BOND STRENGTH TO CONCRETE
METHOD: ASTM D4541
TYPICAL VALUE: 300-400 psi. Concrete fails first

LINEAR SHRINKAGE
METHOD: ASTM C531
TYPICAL VALUE: 0.155% maximum

THERMAL COEFFICIENT OF EXPANSION
METHOD: ASTM C531
TYPICAL VALUE: 32 x 10^{-6} in./in./°F

FILM HARDNESS, SHORE D
METHOD: ASTM D2240
TYPICAL VALUE: 90-93

PEAK EXOTHERM
METHOD: ASTM D1640
TYPICAL VALUE: 1,300°F internal at 72°F ambient (0.44 $ft.^3$ mix)

DRY THROUGH TIME
METHOD: ASTM D1640
TYPICAL VALUE: 2.16 hours (0.44 ft.3 mix)

HIGH HEAT RESISTANCE RANGE
METHOD: ASTM D648
TYPICAL VALUE: 1,700-2,000°F

TECHNICAL DATA

EPOXY GROUT GP

PHYSICAL PROPERTIES

		EPOXY GROUT GP
Resin Type		Polyamine Converted Epoxy
Pigment Type		Titanium Dioxide, Carbon Black
Solvents		Furfuryl Alcohol
Weight*	**Per Gallon**	9.26 lbs.
	Per Liter	1.11 kg
Solids*	**By Weight**	100%
	By Volume	100%
Volatile Organic Compounds*		<145 g/l (1.21 lbs./gal.)
Practical Coverage		0.44 cubic feet
Mixing Ratio		2.9:1 base to activator by volume
Induction Period		None
Working Time		30-60 minutes
Dry Times at 70-80°F (21-27ºC) and 50% Relative Humidity	**Form Removal**	4-6 hours
	Service Ready	8-24 hours
	Topcoat	After 24 hours, the grout surface will require mechanical preparation.
Shelf Life		2 years
Flash Point		>185°F (85°C)
Safety Information		**CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED. MAY CAUSE ASTHMA, SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT MATERIAL SAFETY DATA SHEET (MSDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.**

* Activated material
Calculated values are shown and may vary slightly from the actual manufactured material.

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