RUST-OLEUM®

Concrete Protection Systems

EPOXY GROUT GP

DESCRIPTION

Rust-Oleum® 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 hardener, 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 application equipment available prior to beginning application 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 exotherm 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 topcoated 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.

COLORS

Epoxy Grout GP is available in a medium gray color.

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 topcoated with many of Rust-Oleum's 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.

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PACKAGING

Epoxy Grout GP is available in two standard kit sizes:

The .44 cu. ft. kit includes:

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

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

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

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

The 1.75 cu. ft.kit includes:

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

Part B (hardener): (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, 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.

PRODUCT APPLICATION (cont.)

MIXING

0.44 cu.ft. kit: Pre-mix part A for 30 seconds using an electric drill with a jiffler attachment. Pour the complete container of part B hardener 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 cu.ft. kit: Pre-mix part A for 30 seconds using an electric drill with a jiffler attachment. Pour the complete container of part B hardener 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.

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.

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PRODUCT APPLICATION (cont.)

CLEAN UP

Xylene can be used to remove material from equipment 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

A Material Safety Data Sheet is attached to this bulletin. It is strongly recommended that it 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: 2.16×10^6 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: 32×10^{-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

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.

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