DESCRIPTION

Rust-Oleum® Epoxy Grout QS is a fast curing material. Excellent bond to concrete, high compressive, flexural, and tensile strength make Epoxy Grout QS ideally suited to resist vibration, high torque loads and other physical stresses.

Epoxy Grout QS is used where minimum downtime is required to set 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.

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

- Quick setting: Epoxy Grout QS has a much quicker curing time (approx. 25% quicker) than our Epoxy Grout GP. Ideal for applications where minimizing downtime is essential.
- Excellent bond strength: Epoxy Grout QS 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 Overkote® product, Epoxy Grout QS 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 QS 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 6 to 16 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 QS.
- 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 QS is available in a dark blue color.

TYPICAL APPLICATIONS

Physical abuse: Epoxy Grout QS is used in a wide range of industries that require a fast curing epoxy grout. By using the Epoxy Grout QS, it will ensure accurate, sustained alignment of machinery, compressors and other equipment. For improved aesthetics and chemical resistance, Epoxy Grout QS can be topcoated with any of Rust-Oleum® 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 QS 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 QS is available in one standard kit size:

The .44 cu. ft. kit includes:

- Part A (resin): (1) 1 gal bucket (0.85 U.S. gal.)
- Part B (hardener): (1) 1 qt. F-style can (0.15 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.

PRODUCT APPLICATION

SURFACE PREPARATION

Preparation of the existing concrete is the most important step in the installation of Epoxy Grout QS. 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 QS. Curing compounds should be limited to those which can be removed by mechanical scarification of the surface.

PRODUCT APPLICATION (cont.)

MIXING

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.

USE OF FORMS

Epoxy Grout QS 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 QS 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 before the material has started to set up; otherwise, stronger solvents such as methylene chloride will be necessary.

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

COMPRESSIVE STRENGTH
METHOD: ASTM C579
TYPICAL VALUE: 16,100 psi

FLEXURAL STRENGTH
METHOD: ASTM C580
TYPICAL VALUE: 5,740 psi

MODULUS OF ELASTICITY
METHOD: ASTM C580
TYPICAL VALUE: $2.51 \times 10^6$ psi

TENSILE STRENGTH
METHOD: ASTM C307
TYPICAL VALUE: 2,940 psi

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

LINEAR SHRINKAGE
METHOD: ASTM C531
TYPICAL VALUE: 0.025% maximum

THERMAL COEFFICIENT OF EXPANSION
METHOD: ASTM C531
TYPICAL VALUE: $19 \times 10^{-6}$ in./in./°F

FILM HARDNESS, SHORE D
METHOD: ASTM D2240
TYPICAL VALUE: 90-94

PEAK EXOTHERM
METHOD: ASTM D1640
TYPICAL VALUE: 1,600°F internal at 72°F ambient (0.44 ft.\(^3\) mix)

DRY THROUGH TIME
METHOD: ASTM D1640
TYPICAL VALUE: 1.66 hours (0.44 ft.\(^3\) mix)

HIGH HEAT RESISTANCE RANGE
METHOD: ASTM D648
TYPICAL VALUE: 200-225°F