Product Data Sheet

RCC CORROSION CONTROL

COROGROUT VE
Vinyl Ester Equipment Grout

PRODUCT DESCRIPTION
COROGROUT VE is a three-component, chemical resistant machinery grout based on Vinyl Ester resin. **COROGROUT VE** resists a broad range of chemicals including inorganic and organic acids, bleach solutions, alkalis, oils and salts.

GROUTING COMPOSITION
The grouting system consists of resin, hardener and aggregate components. The standard 114 lb. unit yields 0.82 ft^3 (23 l) volume for pour thicknesses up to 2" (50 mm) maximum. Aggregate loading can be adjusted slightly to produce appropriate flow characteristics.

FIELDS OF APPLICATION
COROGROUT VE is designed to provide grout support and chemical resistance for chemical pumps, motors, structural steel column supports, rotating equipment in acid environments, chemical process equipment, tanks and vessels. .

FEATURES
- Excellent chemical resistance
- High strength for optimum support
- Excellent adhesion to concrete and steel
- Fast cure and return to service time

CHEMICAL RESISTANCE
Information on the chemical resistance properties is available upon request.

SURFACE PRE-TREATMENT
Carbon steel
Oil must be removed from the steel using a suitable degreaser. Where bonding of the grout is desired steel surfaces should be abrasive blasted and cleaned.

Concrete
The concrete must be thoroughly cured and dry at the time of application. For optimum performance the recommended compressive strength is 3500 psi (25 N/mm^2) or higher.

The concrete must be mechanically roughened by chipping to remove laitance and weak, unsound concrete. For best results a minimum 1/8" (3mm) surface profile should be achieved, exposing 1/2" (13 mm) coarse aggregate. The surface must be clean prior to grout placement.

Forms
Build forms at least one inch above the bottom of equipment frame and no greater than 6" (150 mm) away from the edge of the baseplate, rail or soleplate. 2 – 6" (50 – 150 mm) is typical. Apply two heavy coats of paste wax, or other release comound to forms before they are erected. Seal the forms after erection to ensure they are liquid tight.

APPLICATION
- Pour **COROGROUT VE Hardener** into the pail of **COROGROUT VE Resin** and stir well using a slow speed drill motor and paddle mixer. Scrape the sides of container during mixing to ensure hardener is fully mixed with the resin.
- Pour resin/hardener mixture into a mortar mixer. Add aggregate gradually. Mix only until aggregate is fully wetted. Mix at low speed, maximum 20 rpm.
- The amount of aggregate can be adjusted depending on the type of pour, grout thickness, access, flow distance and temperature.
- Pour the grout from one side of the form through to the other. The grout will flow, but when necessary it can be aided by pushing with banding straps or plywood strips in the direction of the grout flow with long, slow strokes. Do not vibrate**.**
- The exposed grout surface can be smoothed by light troweling and/or brushing with mineral spirits.
- Shade the area from direct and indirect sunlight at least 24 hours before and 48 hours after grouting.
- Cold temperatures will reduce the flow of the grout and increase the cure time.
- Hot temperatures will increase the flow but also reduce working time.

Note: During application, the grouted surface should be shaded from direct or indirect sunlight whenever possible.

MIX RATIO
The mixing ratio of **HARDENER No. 1 Clear** to **COROGROUT VE Resin** is 4 oz. per 1.7 gallon. 100 lbs of aggregate is added to the mixed resin.

CONSUMPTION

Grout Description	Container Size	Thickness inch (mm)	Yield ft^3 (l)
COROGROUT VE 114 lb (51.7 kg) Kit COROGROUT VE Resin HARDENER No. 1 Clear COROGROUT VE Aggregate	1.7 gal (14 lb) 4 oz. 2 -50 lb bags	≤ 2 in. (≤ 50 mm)	.82 ft^3 (23 l)

The grout material is supplied in premeasured units including resin, hardener and aggregate so that weighing or measuring of the components is kept to a minimum.

WORKING TIME

Temperature	COROGROUT VE
50°F (10°C) 70°F (21°C) 90°F (32°C)	100 min 60 min 45 min

CURE TIME (to place in service)

Temperature	To achieve 10,000 psi (69 MPa)
50°F (10°C) 70°F (21°C) 90°F (32°C)	36 hrs approx. 24 hrs approx. 16 hrs approx.

Cracking

Grout pour depth should not exceed 2 inches (50 mm) in order to minimize any cracking. Cracking can be caused by exothermic reaction if grout is poured too thick, thermal stresses, thermal shock and mechanical stresses. Cracks may also occur on the surface near sharp corners. Chamfering of concrete edges helps to reduce this cracking. If cracks develop they can be sealed with a mixture of **COROGROUT VE Resin** and **HARDENER No. 1 Clear** in a gravity feed application.

CLEANING: Cleaning Agent T-100

SAFETY MEASURES

The material safety data sheets of the individual components as well as the legal requirements for handling hazardous materials must be observed.

PACKING UNITS

The products are supplied in the following standard package sizes:

Description	Package Size
COROGROUT VE Resin	1.7 gal (14 lb)
HARDENER No. 1 Clear	4 oz.
COROGROUT VE Aggregate	50 lb bag

STORAGE

The materials must be stored in a cool and dry place. At storage temperature of 70°F (21°C) the shelf life is as follows:

COROGROUT VE Resin 6 months
HARDENER No. 1 Clear 6 months
COROGROUT Aggregate Indefinite, if kept dry

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof.

Technical Data	Testing Standard	Unit	Value
Generic Type			Vinyl ester
Color			Grey
Density	ASTM C 905	lb/ft^3 gm/cm^3	139 2.23
Compressive Strength	ASTM C 579 Method B	Psi MPa	13,000-14,000 90-97
Tensile Strength	ASTM C307	Psi MPa	2000-2500 14-17
Adhesion Strength - Concrete	ASTM D4541	Psi MPa	Exceeds strength of concrete
Minimum Adhesion Strength - Steel	ASTM D4541	Psi N/mm^2	1000 7
Linear Coefficient of Thermal Expansion	ASTM C531	in/in°F cm/cm°C	$15\text{-}17 \times 10^{-6}$ $27\text{-}30 \times 10^{-6}$

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. This Product Data Sheet is considered accurate and reliable to the best of our knowledge at the date of its publication, but are used as guides only. The user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for performance of the product or for any loss or damage resulting from its use. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole discretion, to repayment of the purchase price of the non-conforming goods.