REDBAC CR – 180 Grout – K-021

Description:

CR-180 is a two-component, 100% solids epoxy resin system specifically developed for crane rail and other severe applications, where exposure to extreme loads, elevated temperatures and wet environments shortens the service time of "standard" grouts. CR-180 has excellent chemical resistance and retains physical properties even if totally immersed in water. It is resistant to most fuels, oils, chemicals and water, making it ideal for heavy industrial use. CR-180 combines high strength, easy mixing, self-leveling pouring with rapid strength development. CR-180 blends into a self-leveling grout that will easily fill cracks and voids in concrete. CR-180 is specifically designed to carry heavy loads without shrinking or cracking. Heavy-duty crane rails set in CR-180 last up to ten times longer than conventional grouts.

Intended Use:

- Grouting machine bases
- Setting sole plates
- Setting anchor bolts
- Repairing deteriorated foundations
- Setting leveling wedges
- Enhancing concrete surfaces

Application Guidelines:

The working time (the time you have before the grout sets) will vary according to the air temperature. The average working time of 72°F (22 °C) will be about 45 minutes. In cooler weather you will have more time to pour, in hotter weather you will have less time.

The average cure time from the last pour to machinery start-up will be 24 hours at 72°F (22°C). In cool weather the grout will cure and develop strength more slowly than in hot weather.

Handling Properties:

SPECIFIC GRAVITY, g/cm^3	1.78		ASTM D 792
MIXED VISCOSITY, cP or mPa.s	25,000		ASTM D 2196
WORKING TIME, min	45		
GEL TIME, min	65		ASTM D 2471
MAXIMUM DEPTH OF POUR, in. (cm)	2	(5.08)	

Physical Properties:

COMPRESSIVE STRENGTH, psi (MPa)	17,800	(123)	ASTM D 695
TENSILE STRENGTH, psi (MPa)	5,000	(34)	ASTM D 638
FLEXURAL STRENGTH, psi (MPa)	9,100	(63)	ASTM D 790
HEAT DISTORTION TEMPERATURE, °F (°C)	150	(66)	ASTM D 648
MAXIMUM CONTINUOUS SERVICE TEMPERATURE, °F (°C) (for non load-bearing applications)	250	(120)	
COEFFICIENT OF THERMAL EXPANSION, 10^{-5}/°F	5.0		ASTM D 696
HARDNESS, Shore D	90		ASTM D 2240
WATER ABSORPTION (30 days @ 72°F or 22°C), %	0.14		ASTM D 570
CREEP (24 h @ 600 psi or4 MPa load), in./in. or cm/cm @ 150°F (66°C)	1.49×10^{-2}		ASTM C 1181

Surface Preparation:

CONCRETE PREPARATION: Remove all oil, grease, or contaminated concrete. Chip the surface down to sound aggregate. The concrete must be dry and have no water in the anchor bolt holes. Light sand blasting or acid etching surface preparation procedures may result in poor bond and should be avoided. Do not prime or seal concrete surfaces.

FORMING: Standard wood or metal forming may be used. The forms should be protected with heavy coats of paste wax, grease, or form release agent. Wrapping the forms with heavy plastic is acceptable. The forms must be caulked and sealed to a liquid-tight condition.

When placing forms for grouting, it is absolutely necessary that the top of the forms be at least half way up the sides of the base plate or machine base. Placing the grout just to the bottom of the base plate will result in an improper grout job. If the forms cannot be placed half way up the side of the machine base, the minimum distance is 3/4 inch (1.9 cm) above the bottom of the machine base.

The forms should be placed between 2 and 6 inches (between 5 and 15 cm) away from the perimeter of the machine base to allow for the air to escape and to provide for a grout shoulder around the base plate.

PREPARATION OF METAL SURFACES: Base plates or sole plates to be grouted should be sandblasted to a "white metal" condition. If it is impossible to grout within 24 hours of sand blasting, the surfaces should be primed with a high-quality primer. Do not use porch and deck enamel or red-lead primer

Mixing:

Two Component Grouts (Resin & Hardener) - Open both containers and pour the entire contents of the small can (hardener) into the large container (resin). Mix with mixing paddle in a low speed drill until a uniform color appears (3 to 4 minutes). **DO NOT ADD ANY WATER**.

Application:

Always sweep (pour) from one side of the base toward the other to eliminate entrapped air. The storage temperature of the unmixed kits of REDBAC will greatly affect both the ease of pouring and the cure time. For best results, REDBAC kits should be stored in a warm room for at least 24 hours before use. Do not pour if grout is below 50°F (10 °C).

During cold weather (below 50°F or 10°C), it is important that the foundation be enclosed and maintained above 50°F (10°C). The cure time of the grout will be longer during cold weather and it is important that the grouted area be kept warm (above 50°F or 10°C) until the grout has cured completely.

Uncured REDBAC grout can be removed from tools and equipment with Copps Enviro Kleen or isopropyl alcohol.

Packaging:

K-021-22: 1.49 Gallons = 344 $in.^3$ = 5.64 l
K-021-50: 3.38 Gallons = 781 $in.^3$ = 12.79 l

SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.** Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

FOR INDUSTRIAL USE ONLY

WARRANTY AND DISCLAIMER

10500 N. Commerce Street •. Mequon, WI 53092-4473
262-238-1700
www.coppsindustries.com