FARCO GROUT G3 (KIBOTITE)

3 Component High Strength Epoxy Grout

Product Description

G3 is a three component, high strength, 100% solids epoxy grouting compound which is formulated in two types:

1. G3-A with aggregate size up to 1mm for grouting areas with maximum 3cm thickness.
2. G3-B with aggregate size up to 2.5mm for grouting areas with maximum 10cm thickness.

Application

· Grouting of machineries with high vibration
· Heavy machinery, Compressors and engines, Production equipment
· Crane rail tracks, Bridge Bearings, And reciprocating machinery
· Support of chemical tanks, vessels and rotating equipment
· Repair of concrete floors in industrial areas
· Grouting between concrete and steel sleeves.
· Column and foundation reinforcement

Advantages

· High flexural, shear, tensile, bond and compressive strengths
· Excellent chemical resistance against oils, mineral acids, fuels and alkali solutions
· Resistance to vibration and high repetitive dynamic loads
· Low exotherm with early strength development
· High flowability

Physical Characteristics

Appearance(A+B)	Liquid
Appearance C	Powder
Specific Gravity	1±0.02 kg/l (A, B)
Specific Gravity C	1.6±0.02 kg/l
Specific Gravity G3	1.92±0.3 kg/l
Color A,B	Colorless, yellowish
Color C	crème

Chemical Characteristics

G3 has a good resistance in contact with Sea water, Toluene, Alcohol, Oil, Ammonia and Mineral oils.

Standard Compliance

G3 can be evaluated according to: ASTM C579, D2566, C531, D638.

Technical Information

Compressive Strength (kg/cm²) ASTM C579 at 25 ˚c	1 day 7days 28 days	>400 >850 >950
Flexural Strength (kg/cm²) ASTM C580	7days	>250
Tensile Strength (kg/cm²) ASTM C638	7days	>120
Coefficient of thermal Expansion	28×10(-6)mm/mm/˚c At 0 ˚c to 60 ˚c	
Linear Shrinkage ASTM D 2566	negligible	

Instruction for Use

Surface Preparation

· The concrete surface on which the grout will be placed should be relatively flat without deep pockets or grooves, which would seriously hinder flow of grout.
· The surface should be roughened by green-cutting, chipping or other means to remove all laitance and to provide full amplitude of approximately 1/4 in. (6 mm).

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This procedure should remove all laitance and unsound or insufficiently cured material. The roughened and cleaned surface should be protected from subsequent contamination.

· The newly placed concrete must be cured for at least 28 days.

· The metal surface should be sandblasted to bright metal, if grouting will be delayed for an extended time, an epoxy primer consisting of resin and converter may be used over sandblasted surfaces to prevent corrosion.

Formwork

· The forms should be rigid, sufficiently tight-fitting, and sealed (such as taped or caulked) to prevent leakage.

· Forms should be coated with compatible form oil or wax or lined with polyethylene to reduce absorption of liquid and to facilitate form removal.

· The forms on the placement side should extend above the bottom of the plate to form a head box. The head box should begin (50 to 100 mm) from the plate and slope away from the plate at about 45 degrees. The slope on the form permits the grout to be poured under the plate with a minimum of turbulence and air entrapment. The form on the opposite side should be (50 to 100 mm) from the plate and should extend at least 1 in. (25 mm) above the bottom of the plate. The height of the head box depends on the distance the grout must flow. In general, the height above the highest grout elevation under the plate should be about 1/5 of the travel distance for the grout. On the side of a plate parallel to the direction of grout flow, the forms should generally be less than 1 in. (25 mm) from the plate.

Mixing

For optimum performance, all components should be conditioned to between (18˚C and 25˚C) prior to use. Pour all Component B (hardener) into pail containing Component A (resin). Mix thoroughly by gloved hand or slow speed mixer to avoid air entrapment. Pour mixed liquids into mortar mixer. While mixing, slowly add Component C (aggregate) and mix only until aggregate is completely wet.

Placement

· If anchor-bolt sleeves are to be grouted, sleeves, holes, and similar items should be cleaned of debris, dirt, and water by oil-free compressed air or vacuum.

· Anchor-bolt sleeves and holes that are to be grouted should be grouted before pouring grout under the plate. This is necessary to assure that the grout maintains contact with the plate.

· All placements should be made from one side of the plate. Placement should begin at one end of the plate and continue at that point until the grout rises above the bottom

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of the plate on the opposite side of the plate. Then, the placement point or portable head box should be moved slowly along the side of the plate from one end to the other.

The placement point should be moved at the same rate as the face of grout moves along the length of the plate on the opposite side. The continuous movement of a single face of grout prevents air entrapment. Grout should not be placed at various locations along

one side because the movement of the grout cannot be monitored and air can easily be trapped between placing points. For the same reason, grout should not be poured toward the center from opposite ends.

· To encourage flow of grout, steel packing straps can be inserted on placement side and moved slowly back and forth.

Temperature factors

· At temperatures lower than 18˚c the viscosity of the components A, B is increased therefore the flowability of the prepared grout decreased, in addition the rate of strength gaining is reduced too.

· In the contrary at high temperatures as the reaction of G3 is exothermic, the mixture temperature increases and leads to lower pot life and possible thermal cracks during cooling. Keep the ambient temperature lower than 35˚c.

· It is recommended to keep the components at the desired temperatures long enough prior to grouting.

Packaging

G3 is supplied in:

A=1 kg, B=0.5 kg C=4.6 kg A, B, C=6.100 kg

A=2 kg, B=1 kg C=9.2 kg A, B, C=12.200 kg

A=1 kg, B=3 kg C=27.6 kg A, B, C=36.600 kg

Shelf life and Storage

1 year in original unopened packaging when stored in dry conditions.

Technical Service

The SHIMISAKHTEMAN Technical Service Department is available to assist you in the field and correct use of our products.

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