E.M.EPOXY GROUT-1000

3-COMPONENT POURABLE MULTIPURPOSE EPOXY GROUT

DESCRIPTION

A three component pourable epoxy grout based on a high grade epoxy resin and specially graded aggregates. On mixing a flowable grout is produced for use in heavy engineering and difficult conditions.

FIELD OF APPLICATION

- Under-grouting and bedding of base plates, bridge bearings, machine bases, seat base-plates for light and heavy machinery including heavy impact and vibratory machinery, reciprocating engines, compressors, pumps, presses, etc.
- Crane tracks
- Reinforcement

ADVANTAGES

- Ready-to-mix, pre-batched units
- Chemical resistant
- Solvent free
- Rapid shrinkage free hardening
- High mechanical strength
- Good impact and vibration resistance
- High adjustable flow
- Good bonding to most substrates

SURFACE PREPARATION

Concrete should be old enough, if it is newly placed concrete then it needs to be 21-28 days old and to have reached its design strength.

• Concrete should have attained a minimum compressive strength of 21 MPa, higher strength concrete is recommended for optimum performance of grout.

• All surfaces should be dry, clean, and free from standing water, grease, curing compounds, mold oils, all loosely adhered aggregates and cement particles, etc.

• Chip the concrete surface so aggregates are exposed to ensure all laitance and weak particles are removed. Alternatively use a spray on surface retarder when placing concrete. The exposed aggregate amplitude should not be greater than 10-15 mm.

• Chamfer the edges of the concrete 45 degrees to 50 mm. width to avoid sharp corners which helps to reduce the potential for cracking.

• Shade the foundation from direct sunlight for at least 24 hours before grouting and 48 hours after grouting.

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MIXING

• Before mixing ensure all the components are cool, shaded and dry. If not preconditioned store all components below 25°C for 24 hours before using.
• The temperature of grout, baseplate and foundation are more important than the air temperature because they are directly related to the flow of grout.
• Add component A & B in a mixing vessel and mix under slow speed (400 rpm) for approximate 1 minute. Then add component C and continue mixing until a flowing uniform grout is achieved.
• Avoid excessive mixing which will result in reduction of working time and heat generation.

APPLICATION

• While grouting the base plates ensure there is sufficient pressure head to maintain movement of grout.
• Base plates with a flat base pour the grout from one side through the other across the short dimensions.
• Ensure entrapped air can escape when grouting closed areas.
• Where grout cannot flow or have smooth movement because of the length of pour pushing aids like steel chains, strips of plywood, etc. can be used.
• The base plate with anchor bolts, dowel, starter bar, etc. should be grouted first followed by the base plate.
• If grouting in multiple layers, it is necessary to sprinkle a small amount of 2.5 mm aggregate over the first layer before the grout reaches its setting time. Before placement of 2nd layer brush out loose aggregates from the 1st pour. Another method is to scrabble gently the top surface and make it rough when grout reaches near to its setting time.

APPLICATION CONDITIONS/LIMITATIONS

Substrate Temperature	+ 10˚C - + 30˚C
Ambient Temperature	+ 5˚C - + 25˚C
Material Temperature	+ 15˚C - + 25˚C Condition the material by also storing at this temperature for 24 hours before use.
Substrate Moisture Content	≤ 5% pbw
Dew Point	Substrate temperature during application must be at least 3˚C above dew point to avoid condensation.

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TECHNICAL PROPERTIES

Appearance	Part A: liquid Part B: liquid Part C: powder
Mixing Ratio (A:B:C)	5: 2.5 :27.5 (by weight)
Density (A+B+C)	2.1 + 0.1 g/cm^3
Layer Thickness	Minimum grout depth: 10 mm Maximum grout depth: 100 mm

Compressive Strength
(According to ASTM C579)

Curing time	+23°C
1 days	~ 90 MPa
3 days	~ 105 MPa
7 days	~ 110 MPa

Flexural Strength (According to ASTM C580)	~ 30 MPa
Tensile Strength (According to ASTM C307)	~ 14 MPa
Thermal stability (HDT) (According to ISO 75)	+ 50˚C

Drying Time

Temperature	Touch dry	Over-coating	Full cure
+15 °C	16 hrs	20 hrs	13 days
+25 °C	12 hrs	16 hrs	7 days
+40 °C	8 hrs	12 hrs	4 days

Pot life

Material temperature	+15 °C	+25 °C	+40 °C
Pot life	90 min	55 min	20 min

PACKAGING

35 kg set.

STORAGE & SHELFLIFE

The shelf life is 12 months if unopened, stored free from frost, moisture and direct sunlight.

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HEALTH & SAFETY

This product is Flammable. Keep away from heat and open flame .Keep container closed .Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to the health:

1-Circulate adequate fresh air continuously during application and drying.
2-Use fresh air masks and safety equipment.
3- Prohibit all flames, sparks, welding and smoking.
MSDS is available at ABADGARAN website.

TECHNICAL SERVICE

The ABADGARAN INTERNATIONAL GROUP Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

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