

Condur[®] EGLP2

A 2 COMPONENT HIGH STRENGTH, LOW EXOTHERM & LONG POTLIFE EPOXY GROUT

DESCRIPTION

Condur EGLP2 is a two component, high performance, 100% solids, solvent free, epoxy grout system. It is designed to exhibit high strength, long potlife and low exotherm during reaction enabling it to be used in mass grouting and large volume placements.

USES & ADVANTAGES

Condur EGLP2 can be used for grouting heavy machinery base plates, compressors, crane rails, rail tracks, generators, turbines, bridge bearing, steel column base plates, re-profiling and waterproofing pile heads, etc. It is used as the best media to transfer dynamic load effectively. Applications include with high speed turbines, reciprocating machinery and in areas requiring good chemical resistance. Due to its low exotherm, it is the ideal product for chemical plants, refineries, and the oil & gas industries where thick pours are to be made without causing stress cracks often associated with high exotherm epoxy grouts.

Advantages include:-

- Low exotherm with high early mechanical strength development.
- Long working time, easy to handle and place.
- Single deep pour up to 300mm.
- Free flow enables for long pours more than 2 m.
- Good chemical resistance.
- Precision alignment under dynamic load conditions.
- Unaffected by high humidity.
- Good bonding to most substrates.
- Adjustable flow at various conditions.
- Low shrinkage allows final leveling of machine base plates and complete surface contact & bond.
- Prepacked, ready to use.
- Good impact and vibration resistance.
- Excellent flow properties.
- 2 part giving better quality control during mixing & reduced bubbles.
- High compressive, tensile & flexural strengths.

PROPERTIES

Components:	2 (Base & Hardener)
Form:	Flowable
Appearance:	Black (when mixed)
Mixed Density (kg/ltr):	2.00
Working Time:	90 mins.
Compressive Strength (ASTM C579)	
1 day @25°C :	>55 N/mm ²
7 days @25°C :	>90 N/mm ²
28 days post cure@60°C :	Approx. 110 N/mm ²
Flexural Strength @ 7days:	31 N/mm ²
(ASTM C580)	
Tensile Strength @ 7days:	15.5 N/mm ²
(ASTM D638)	
Bond Strength @ 7days:	≥ 3 N/mm ²
(ASTM D4541)	(Concrete Failure)
Application Temperature:	+10 °C to 40 °C
Service Temperature:	-20 °C to 100 °C

Linear Shrinkage: Negligible
(ASTM D2556)

Effective Bearing Area: ≥95%
(ASTM C1339) modified

Elongation: 1.75%
(ASTM D638)

Water Absorption Coefficient @ 7days: NIL
(ASTM C413)

Grouting Thickness Min : 10 mm.
Max : 300 mm.

Chemical resistance : Excellent most chemicals
(ASTM D543)

Note:

- The above data is typical @25°C under laboratory conditions and does not constitute a specification. Field trials are recommended.
- The working time starts when the hardener is added to the base material.
Working time will vary depending on the temperature and the quantity mixed. To get the optimum working time keep the material shaded and in a cool place.

SUBSTRATE PREPARATION

Foundation 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, free from standing water, grease, curing compounds, mould 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 at 45 degrees at least 150 mm radius to avoid sharp corners, refer epoxy grouting manual.
- If anchor bolt sleeves are to be placed, be sure all water is removed and the void completely dry.
- Shade the foundation from direct sunlight for at least 24 hrs before grouting and 48 hrs after grouting. Refer epoxy grouting manual for more details.

Equipment Preparation

- Ensure the surface of base plate to be bonded with grout is free from rust, coatings, wax, oil, grease or scale. Mechanical methods such as grinding, sanding, etc can be used to remove laitance, scale, etc to give a sound and clean surface.
- Primers can be used when there is a long delay in cleaning and grouting which could allow rusting and contamination of base plate.

Condur® EGPL2

A 2 COMPONENT HIGH STRENGTH, LOW EXOTHERM & LONG POTLIFE EPOXY GROUT

Formwork Preparation

- Before placing the formwork ensure the foundation and equipment is protected from rain or moisture.
- Seal off the areas that will not be grouted.
- Place forms no greater than 70 mm away from the edge of individual base plate or sole plate. Refer epoxy grouting manual.
- Shoulder width should be less than Depth of grouting.
- Excessive edges/shoulders may create thermal stress resulting in cracks.
- Chamfers installed on forms at 45° as per epoxy grouting manual.
- For long and narrow placements create a header box to maintain pressure and to enhance proper placement Pumps preferred.
- Forms should be liquid tight, they should be sealed with sealant, putty, foam or caulk.
- Expansion joints should be installed through depth of grout < 1 m spacing.

Deep Pour Recommendations

It is recommended to use dowel or rebar of 9 to 14 mm diameter to minimize stress cracking.

- Grouting should be done in multiple layers when pouring deep sections.
- When pouring deep sections anchor bolts should be used.
- When pouring in multiple layers ensure the previous layer is hardened and cooled.
- Anchor bolts should be installed at spacing < 30 cm. Refer epoxy grouting manual for more details.

MIXING

- Before mixing ensure all the components are conditioned below 24°C as per epoxy grouting manual.
- The temperature of grout, baseplate and foundation are more important than the air temperature because they are directly related to the flow of grout.
- Pour the contents of the hardener pack into the base and mix under slow speed (RPM 400) continue mixing until a flowing uniform grout is achieved. (about 3 minutes)
- Avoid excessive mixing which will result in excessive air bubbles, reduction of working time and heat generation.
- Refer epoxy grouting manual for more details.

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, however, be aware of trapping air.

- 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 scabble gently the top surface and make it rough when grout reaches near to its setting time.
- Pour should be planned in layers < 12 cm for deep sections.
- Thermal curing should be undertaken for deep sections.
- Pumping is always preferred for large baseplates.

FINISHING

A smooth finish may be achieved before the grout reaches its setting time by using a steel trowel or wooden trowel to level the surface.

CURING

- Cure time will depend on the ambient and substrate temperature. For the best results pour the grout and cure above 12°C.
- The grouts setting time will be delayed and will not achieve the desired properties at temperatures below 5°C.
- For cold weather grouting please contact Cormix Technical Department for assistance.

IMPORTANT NOTES TO ACHIEVE PRODUCT PERFORMANCE

- Do not alter the ratios of the set.
- Do not thin the grout with solvent or water to make it more flowable.
- Always use a header box to maintain pressure and the grouts flowability.
- Following proper installation procedures will reduce problems. The procedures contained in this data sheet highlight generally accepted field practices for successful grouting. These may be followed, modified or rejected by the user, however, it is not Cormix's responsibility for planning & understanding the installation appropriate to the conditions. If planned procedures differ from the data sheet, contact Cormix Technical Service Department.
- Epoxy based grouts sometimes develop cracks. Cracks are generally caused by thermal stresses, temperature difference, sharp corners and edges, etc. Horizontal edge cracks may occur just below the grout concrete interface especially in outdoor installations. Chamfering the concrete edge helps in reducing such cracks.
- To reduce/prevent curling use dowels or scabble back to expose rebar. Following proper installation procedures will reduce the amount of crack development. The procedures contained in this data sheet highlight generally accepted field practices for successful grouting.

Condur® EGLP2**A 2 COMPONENT HIGH STRENGTH, LOW EXOTHERM & LONG POTLIFE EPOXY GROUT**

- These may be followed, modified or rejected by the user, however, it is not Cormix's responsibility for planning & understanding the installation appropriate to the conditions. If planned procedures differ from the data sheet contact Cormix Technical Service Department.
- If cracks develop use **Condur SC** (Low viscosity epoxy resin system) to repair the cracks. Consult Cormix.
- Make certain the most current version of the TDS & SDS are being used by contacting Cormix CS.
- Proper application is the responsibility of the user, field visits by Cormix personnel are for the purpose of making technical recommendations only & not for supervising or providing quality control at the job site.
- Read the Cormix epoxy grouting manual in conjunction with Technical Data Sheet.

CLEANING

Clean all tools and equipment immediately with Cormix Cleaner or xylene.

PACKAGING

A+B - 29 kg set (14.50 litre) & 20 kg set (10 litres).
Pre-measured sets or larger packaging upon request.

STORAGE & SHELF LIFE

Store in dry conditions between 5°C - 30°C. The shelf life is 12 months when unopened and stored correctly.

HEALTH & SAFETY

Avoid contact with skin and eyes and avoid breathing vapour. Use only in well ventilated areas away from heat sparks or naked flame. Wear suitable protective clothing, gloves and eye protection when mixing or using. If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, do NOT induce vomiting give a glass of water. If in eyes, hold eyes open, flush with water for at least 15 minutes and see a doctor. If skin contact occurs, remove contaminated clothing and wash skin thoroughly with soap and water.

TECHNICAL SERVICE

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

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product. Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advice offered.

QUALITY ASSURANCE

ISO 9001 : 2015 verified by TUV Nord
ISO 14001 : 2015 verified by Lloyd's Register International.

CONTACT DETAILS

Cormix International Limited
89 Romklao Rd., Sansab, Minburi, Bangkok 10510
Tel. (66 2) 917 3955-8
Website: <http://www.cormix.com>
Email Address: info@cormix.com