

MONNELI EPOGROUT PC

High Strength Epoxy Mortar for Pile Treatment

Product Description

A three component epoxy based grout consisting of base (A), hardener (B) and graded filler (C). When mixed together, the product becomes high strength impermeable epoxy mortar.

Specially formulated to be used as a pile head treatment. When applied to top of the pile head, the product provides a highly bonded waterproofing barrier to the pile head which prevents water seepage from ground to the pile caps through the piles.

Specified for use in the bridge construction where as part of an integrated system.

Uses

EPOGROUT PC is designed as a pile head treatment. The applied product seals the pile head with a continuous, fully bonded and totally waterproofing barrier. The system prevents the underground water to seepage by capillary force along the reinforcement bars into the pile cap. Such protection will prevent any possible water leakage to the building and will protect the pile caps reinforcement from corrosion. It can also be used in anchors, rails, cranes and bridge bearing seats. Heavy machinery, equipment or structural elements needing maximum bearing support

Advantages

- Pre-measured proportions ensuring mixing consistency
- Excellent performance under dynamic loads
- High bonding strength to the pile head
- High resistance to underground water and soil chemical attacks
- Has zero water penetration characteristics which ensures full waterproofing barrier to the pile head
- Compatible to most types of water proofing systems

Instructions for Use

Surface Preparation

The pile head surface must be clean, sound and uncontaminated. Remove all dirt, laitance, grease or any other foreign material.

Remove all loose particles or defected concrete. Use EPOFINISH or BETOCEM HR to repair / re-profile the pile head.

The pile head surface should be cleaned and completely dry just before applying the product.

Pile reinforcement bars should be straightened, clean and rust free. Steel bars may be protected by the application of one coat of BETOFER or EPOZINC (steel primers).

Fix a complete leak proof wooden formwork around the pile head. Use sealant, foam or rubber strip to seal the joints in the formwork and to close the gaps between the formwork and the pile head. Coat the formwork from inside with a high quality release agent to ease the de-bonding of the shuttering afterwards.

Mixing

EPOGROUT PC is supplied as a three-component kit consisting of base, hardener and a bag of selected, graded aggregate. The resin and hardener components should be stirred separately for three minutes or until thoroughly blended. The contents of the hardener should be added to the base component and stirred with a heavy duty drill until all the components are thoroughly blended. Then slowly add the entire amount of aggregates to the resin while the mixer is still running. Partial mixing of the three components should not be allowed under any circumstances.

Application

Place the mixed products immediately after mixing; use a steel trowel to level. It is advisable to calculate and mix enough quantity each time for one pile or multiple of piles.

The mixed product should be strictly placed within the product pot life. Watch the formwork while placing the product, if any leakage is noted, seal the leaking spot immediately.

Once the product dries, the formwork can be removed. Clean the surface by sanding it manually to remove all traces of release agent, and to provide an adhesive key for the recommend waterproofing system.

Cleaning

All used tools should be cleaned with SOLVENTE 10 before the product cures. Hardened material should be removed mechanically.

Recommendations

- Do not apply EPOGROUT PC if the temperature is less than +5°C.
- Partial mixing of the product components should not be allowed under any conditions.
- EPOGROUT PC should be placed in a thickness between 10 mm to 100 mm per layer.
- Extra care should be taken when applying at high temperature as pot life of the mixed product will shorten automatically.
- It is recommended to shade the working area while mixing and placing EPOGROUT PC.

Consumption

Approximately 15L per 30kg kit

Packaging

The product supplied in a three-component 30kg kit.

Technical Data

Properties	Results
Density at 25°C	1.97kg/L
VOC	8.8 g/L
Pot life at 25°C	90 minutes
Compressive strength at 7 days (ASTM C 579)	90 N / mm ²
Flexural strength at 7 days (ASTM C580)	19 N / mm ²
Tensile strength at 7 days (ASTM C307)	10.5 N / mm ²
Water penetration	Nil
Abrasion resistance	Higher than concrete
Impact strength	Higher than concrete
Bond strength	Higher than the tensile strength of concrete
Chlorine permeability	Negligible
Sulphate permeability	Negligible

All values are subject to 5-10 % tolerance

Storage

Keep the product in dry, covered conditions at 25°C. In these conditions, product stability is 12 months from date of manufacturing.

Health & Safety

Wear protective gloves and goggles during application. This product contains chemicals which may be potentially harmful to your health if not used properly. It is strongly recommended to read the material safety data sheets for proper storage and to observe precautions. If contact with skin or eyes happen, use resin cream to remove it from skin followed by clean water, do not use solvent. In case of contact with eyes, use clean water and seek medical assistance.

The information in this Technical Data Sheet is based on Colmef Monneli's experience. Colmef Monneli does not accept any liability arising from the use of its products as it has no direct or continuous control over where or how its products are applied. All Colmef Monneli's Data Sheets are updated on regular basis. It is the user's responsibility to obtain the latest version.

DUBAI
ABU DHABI
ITALY

P.O. Box 123808 Dubai UAE
P.O. Box 127326 Abu Dhabi, UAE
Z.I. Ponte d'Assi 06024 Gubbio (PG)

T. +971 4 8803488 F. +971 4 8803450
T. +971 2 5511949 F. +971 2 5511749
T. +39 75 9221297 F. +39 75 9221174

EPOGROUT PC
Technical Data Sheet
Edition: January 2020
Revision: 02

colmef@colmef.ae

www.colmef-me.com