

# KingGrout<sup>®</sup> PCE100

**High strength pourable epoxy resin grout for pile top encapsulation.**

## DESCRIPTION

KingGrout PCE100 is a three component, high strength, free flowing, epoxy resin grout used for encapsulating pile tops to ensure water tightness. KingGrout PCE100 is suitable for grouting gaps with thicknesses between 10 – 80 mm.

KingGrout PCE100 has a good bonding to the pile surface and it stops water passage in the pile cap system. Also KingGrout PCE100 is suitable with waterproofing membranes either self-adhesive types or normal torch applied membranes.

## ADVANTAGES

- ☐ Resistant to dynamic loading.
- ☐ Non-shrink and low creep characteristics under continuous loading.
- ☐ Exceptionally high compressive, flexural and tensile strengths.
- ☐ Extremely dense.
- ☐ Exceptional bond to concrete and steel surfaces.
- ☐ Good chemical resistance.
- ☐ High early strength development allowing for rapid installation.
- ☐ Plays a big role in the waterproofing system of pile top.

## METHOD OF USE

### Substrate Preparation

The pile Substrate should be sound, clean and free from contamination. Surface laitance should be removed by scabbling. All rebars should be clean and free from rust. All surfaces should be dry.

As the mixed grout poses high fluid characteristics, all formwork and shutters should be water tight. This can be achieved by sealing underneath the formwork and at the joints by using an appropriate mastic.

### Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. The entire content of the Hardener pack should be added to the Base pack.

Care should be taken to ensure that the bottom and the product sides are thoroughly scraped and used. Mix the two components for 2 minutes. The filler should be gradually added while mixing. Mixing should continue for 3 minutes or until a uniform consistency obtained.

## TECHNICAL PROPERTIES @ 25°C:

|  |  |
|--|--|
| Compressive strength:<br>BS6319, Part 2 : 1983 | ≥ 90 MPa @ 7 days                            |
| Flexural strength:<br>BS6319, Part 3 : 1990    | ≥ 20 MPa @ 7 days                            |
| Fresh wet density:                             | 2.00 ± 0.05 gm/ cm <sup>3</sup>              |
| Tensile strength:<br>BS6319, Part 7 : 1985     | ≥ 12 MPa @ 7 days                            |
| Working life:                                  | 100 - 120 mins.                              |
| Bond strength:                                 | Higher than the tensile strength of concrete |
| Water penetration:<br>DIN1048, Part 5:1991     | Nil @ 10 days                                |

## PLACING AND FINISHING

Enough materials should available to achieve continuous fill and to complete the work. Pouring of the mixed grout should be started from one side only to avoid air entrapment.

Before the application of any waterproofing membrane, KingGrout PCE100 needs to be sanded manually so as to achieve a good adhesion key. It is always recommended that adhesion trial is checked so as to ensure the maximum durability.

Notes:

- ☐ If application is done under high temperatures, care should be done because the working time will be reduced significantly.
- ☐ To reduce the effect of this problem, try to store the unmixed materials in a cool environment, avoiding the direct sunlight. Also, try not to make the application in the middle of the day or direct sunlight.
- ☐ KingGrout PCE100 is available also in trowable Grade under name of KingGrout in separate TDS.

## CLEANING

All tools should be cleaned immediately after finishing using a suitable epoxy thinner. Hardened materials should be cleaned mechanically.

## PACKAGING

KingGrout PCE100 is available in 20 kg packs.

## THICKNESSES AND SIZE LIMITATIONS

KingGrout PCE100 can be applied in a single layer at thicknesses between 10 - 80 mm. For greater thickness, use Flo-Grout EP330.



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## YIELD

Approximately 10 liters/ 20 kg pack.

## STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

## HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

## NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative. KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

## QUALITY AND CARE

All products originating from KingKrete's Qatar facility are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

\* Properties listed are based on laboratory-controlled tests.

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## KingKrete-Qatar/KingGrout\_PCE100\_02/v2/07\_18

### STATEMENT OF RESPONSIBILITY

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