

KingGrout[®] PT100

Free flow non-shrink grout for post tensioned cables.

DESCRIPTION

KingGrout PT100 is a pre-packed powder consisting of cement selected, admixtures and expansive material. KingGrout PT100 reduces the water demand at the desired flow, producing high strength grout with low permeability and excellent bond to steel.

The low permeability grout produced will reduce the ingress of harmful agents and will protect the cables from corrosion.

APPLICATIONS

KingGrout PT100 is ideally designed as free flow grouting in post tensioned cables used in bridges, deck ducts, etc. It is also suitable for use in cable ducts and pre-stressed structural elements.

ADVANTAGES

- ☞ A non-shrink grout which is compensated for shrinkage and settlement in the plastic stage.
- ☞ An extremely low permeability grout at low water to cement ratio.
- ☞ Reduces the ingress of harmful substances.
- ☞ High bond to steel.
- ☞ High initial and ultimate strength.
- ☞ Chloride and hydrogen free.
- ☞ KingGrout PT100 can be supplied with an Anti-corrosion impregnating additive.

STANDARDS

KingGrout PT100 complies with EN447.

METHOD OF USE

Substrate Preparation

- ☞ Sufficient materials should be available on site to ensure continuous grouting.
- ☞ Cables should be carefully cleaned prior to grouting.
- ☞ Cable anchorage should be sealed prior to duct grouting.

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. 25 kg of KingGrout PT100 should be added slowly to 7.50 -

8.75 litre of water and mixed continuously for 5 minutes with speed between 500 - 600 rpm until a uniform consistency is obtained.

TECHNICAL PROPERTIES

Colour:		Grey	
TEST TYPE	TEST RESULT	EN 447 REQUIREMENTS	REMARKS
Fluidity: Flow time t 0 min t 30 min (after re-mixing)	= 20 sec ≤ 25 sec	≤ 25 sec ≤ 25 sec	Comply
Grout spread (71.6 cc cone)	=165 mm	≥ 140 mm	Comply
Homogeneity: Sieve test 2 mm	No lumps	No lumps	Comply
Compressive strength: @ 1 day @ 7 days @ 28 days	≥ 25 MPa ≥ 50 MPa ≥ 60 MPa	≥ N/A ≥ 27 MPa ≥ 27 MPa	-- Comply Comply
Flexural strength: after 28 days	>7.0MPa	N/A	--
Density: EN 445:2007	2.0 ± 0.1 g/cm ³	N/A	--
Bleeding:	0%	0.3% max	Comply
Volume change:	Upto +2%	-1% to +5%	Comply
Setting time: Initial set Final set	6 - 8 hr 18 hr	≥ 3 hr ≤ 24 hr	Comply Comply

*Notes: Compressive strength @ 1 day is under restrain.
Compressive strength @ 7 & 28 days is under wet cure.*

PLACING AND FINISHING

In case of pumping, a suitable diaphragm pump must be used (screw and piston pump may also be suitable). The mixed grout should be pumped from one point only to eliminate air entrapment. The mixed grout should be pumped within 20 - 30 minutes of mixing.

CURING

Only exposed areas should be properly cured with water.

CLEANING

All tools should be cleaned immediately after application using fresh water. Hardened materials must be cleaned mechanically.

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PACKAGING

KingGrout PT100 is available in 25 kg bags.

YIELD

Approximately 16.5 litre of mixed grout is obtained when mixing 25 kg KingGrout PT100, and 8 litre water.

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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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

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