

PRODUCT DATA SHEET

SikaGrout[®]-400 PT Cable PH

High-performance, zero-bleed, cementitious grout for Post-tensioning applications.

DESCRIPTION

SikaGrout[®]-400 Cable PT PH is a non-shrink, cementitious grout for post tension cable applications. It is non-metallic and contains no chlorides. With a special blend of shrinkage reducing and plasticizing/water-reducing agents, SikaGrout[®]-400 Cable PT PH complies to ASTM C1107.

USES

CHARACTERISTICS / ADVANTAGES

- Filling and repairing of voids within ducts of post-tensioned structures
- Sand free allows filling and repairing of voids within ducts of post-tensioned structures
- Easy to use, just add water
- Non-metallic, will not stain or rust
- Zero bleeding, even at high flow
- Low heat build-up
- Excellent for pumping. Does not segregate even at high flow and no build-up on equipment or hoppers
- Non-corrosive, does not contain chlorides

PRODUCT INFORMATION

Chemical Base	Portland cement & selected additives	
Packaging	20kg bag	
Appearance / Colour	Powder / Grey	
Shelf Life	9 months if stored in unopened and undamaged original sealed bags	
Storage Conditions	Stored in a cool dry placed between +10°C and +35°C	
Total Chloride Ion Content	ASTM C1152:2020	Max 0.02%
Mortar mix design	Up to 33% water ratio by weight of powder	

Compressive Strength		1 day	>20 MPa
	ASTM C942: 2015	7 days	>40 MPa
	/ ASTM C109	28 days	>50 MPa
Shrinkage	ASTM C940: 2016	0% 28 days	
Expansion	ASTM C940: 2016	≤ 2.0% at 3 hours	
Chloride Ion Diffusion Resistance	Rapid Chloride Penetration Test (ASTM C1202)	28 days	<2,500 coulombs at 30 Volts for 6 hours
Flow Rate	Flow Consistency immediately after mixing ASTM C939:2016a		Max. 30 seconds
	Flow Consistency after 30 min standing and remixing ASTM C939:2016a	30 seconds	Max. 30 seconds
Change of volume	Volume Change (%) ASTM C1090:2015	1 day	0 to +0.2%
		28 days	0 to +0.2%
Bleeding	ASTM C940: 2016	0.0% at 3 hours	

APPLICATION INFORMATION

Mixing Ratio	Up to 6.6 L per 20 kg bag (water per powder up to 33% by weight)		
Yield	12.4 L - 13.6 L per 20 kg bag		
Product Temperature	35°C max		
Ambient Air Temperature	+10°C min. (temperatures must be rising at the time of application) +35°C max. (at the time of application)		
Setting Time	ASTM C953: 2017	Initial	~240 mins (4 hours)
		Final	~375 min (6.25 hours)

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

USES

- Minimum application thickness: 3 mm
- Maximum application thickness (neat): Comply with PTI (Post-Tensioning Institute) specification for grouting of post-tensioned structures.
- Do not use as a patching or overlay mortar or in open areas.
- Material must be placed within 45 minutes of mixing.
- As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, post, etc. With an appropriate epoxy coating.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall

refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Cable Duct Grouting:

Ensure that ducts, opening, inlets and outlets are clean, free of dirt and debris, fuel, oils and any other contaminants at all times.

Other grouting application:

Remove all dirt, oil, grease, and other bond-inhibiting materials by mechanical means. Anchor bolts to be grouted must be degreased with a suitable solvent cleaning agent. Concrete must be sound and roughened to promote mechanical adhesion. Prior to pouring the concrete, surfaces should be in a saturated surface dry condition.

MIXING

Add 80% of required water and mix for 4 minutes. Add remaining 20% water and mix for additional 2 minutes.

The method of mixing may significantly affect the material properties, particularly flow. At higher temperatures and/or with higher water amounts. Therefore, it may be more appropriate to measure the flow using the standard flow cone test (ASTM C-939)

Specific on site testing by the engineer is recommended to ensure that the mixing and placement methods result in the specified requirement

APPLICATION

Make sure all forming, mixing, placing, and clean-up materials are on hand. The grout should be used within 45 minutes from the start of mixing.

The method of pumping the grout must ensure complete filling of the ducts and complete surrounding of the strands or bar. A mock-up should be completed on-site and inspected by the engineer to ensure that the placement means and methods yield the specified results.

When grouting ducts or other critical element, it is highly recommended that experienced, trained technicians complete the work.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be mechanically removed.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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