

PRODUCT DATA SHEET

SikaGrout® UW

SHRINKAGE COMPENSATED CEMENTITIOUS GROUT FOR UNDERWATER APPLICATIONS

DESCRIPTION

SikaGrout® UW is a ready to use, cement-based grout for applications underwater. The grout, when properly mixed, will have no significant 'wash out' of the cement phase. SikaGrout® UW is a blend of Portland cement, carefully selected and graded aggregates and Sika admixtures enabling it to achieve excellent flow, non wash-out characteristics and high compressive strength.

USES

SikaGrout® UW can be used individually for underwater grouting or as a system in conjunction with Sika Pile Jacket systems or other confinement jacket repair systems for rehabilitation of concrete, steel and timber piles in marine applications.

- Bridge Column repairs
- Piles repair
- Slipways
- Dams
- Underwater grouting

CHARACTERISTICS / ADVANTAGES

- Economical
- Good resistance to 'wash-out' of cement phase when placed underwater
- Effectively displaces water
- Shrinkage compensating properties
- High early & 28 day strengths
- Good impact, vibration and thermal resistance
- Non-corrosive to steel or iron
- Used with Sika Pile Jacket and other pile jacket systems

PRODUCT INFORMATION

Chemical base	Cementitious powder
Packaging	20kg bag
Appearance / Colour	Grey Cement powder
Shelf life	Min. 12 months when stored in original sealed packaging in dry conditions
Storage conditions	Store SikaGrout® UW in dry conditions in un-opened original packaging
Density	2200kg/m ³ approx. (mixed)
Maximum Grain Size	Maximum aggregate size approx. 2mm

TECHNICAL INFORMATION

Compressive Strength	Time	Strength MPa
	1 Day	>30 MPa
	7 Day	>60 MPa
	28 Day	>70 MPa

(AS1478.2) 50mm x 50mm x 50mm cubes

Tensile Adhesion Strength	>2.0 MPa to submerged concrete
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APPLICATION INFORMATION

Mixing ratio	3.5-3.7 litres of clean water per 20kg bag
Yield	11 litres per 20kg bag
Layer Thickness	SikaGrout® UW can be placed in thicknesses of up to 100mm above water, and 200mm underwater. Any grout pour that exceeds this should be done in stages, or have stone aggregate added to it, to reduce the exothermic heat. When adding aggregate, use smooth rounded aggregate ranging from 2mm to 10mm. It is recommended that the maximum aggregate addition is 10kg per 20kg of SikaGrout® UW and site trials should be carried out before application.
Pot Life	20 minutes approx. @20°C
Setting Time	Initial ~ 5 hrs 30 mins @ 20°C Final ~ 6 hrs 15 mins @ 20°C

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.

ECOLOGY, HEALTH AND SAFETY

- Avoid contact with the skin.
- Protective gloves and clothing are recommended when mixing or using this product.
- A full Material Safety Data Sheet is available from Sika on request.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

All surfaces must be clean, sound and free from oils, grease or other surface contaminants. If the concrete surface is defective, or has laitance, it must be cut back to a sound base.

Permanently immersed substrates should be prepared by sand blasting or high pressure water jet. Non-permanently immersed substrates can also be prepared this way, or by scabbling.

MIXING

Equipment

SikaGrout® UW must be mechanically mixed using a mechanical forced action grout mixer. It is essential that mixing is carried out in a manner so that the grouting operation may continue without interruption.

Mixing

Always add powder to the water. Place approximately 70% of the total water content into the bucket.

Add powder slowly to the water while mixing till bag is empty. Then slowly add remaining 30% of the water component is to be added while continuing to mix.

The total water required for each 20kg bag of powder is 3.5 - 3.7 litres. Mix the grout until it appears homogenous (3 to 5 minutes). Allow to stand so any entrapped air can escape. Do not add more water to increase flow of grout if a mix has stiffened due to time delays. If grout is unworkable, discard.

APPLICATION

SikaGrout® UW can be poured or pumped through a flexible tube (minimum diameter of 50mm) to the lowest section of the form. The grout flow must be restricted during the pour so that the water is not entrapped. The flexible tube can be raised to reduce back pressure, however, it should never be raised above the surface level of the grout.

CLEANING OF TOOLS

Clean uncured material with water. Cured material can only be removed by mechanical means.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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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