

PRODUCT DATA SHEET

SikaGrout[®]-285 Dry

High strength dry-pack cementitious grout

DESCRIPTION

SikaGrout[®]-285 Dry is a one part, cement-based grout, with high final mechanical strengths, specifically designed to be placed as dry-pack bedding mortar for use in the renewable energy field, under metal or concrete bases and precast concrete elements.

USES

The product is used in areas where high mechanical strength is required, such as:

- Under the transition adapter in concrete and hybrid wind turbines
- In horizontal joints between concrete segments where low slump is required

CHARACTERISTICS / ADVANTAGES

- Easy mixing and placing by trowel
- Low slump
- Rapid strength development
- Free from chlorides and metallic particles
- Protects metallic parts against corrosion, due to its high pH level
- High mechanical strength

PRODUCT INFORMATION

Chemical Base	Cement, selected fillers, aggregates and special additives		
Packaging	Standard bag		25 kg
Shelf Life	Standard bag		6 months from date of production
Storage Conditions	The Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to the packaging		
Appearance / Colour	Grey powder		

TECHNICAL INFORMATION

Compressive Strength	Time	20 °C	35 °C	(EN 12190)
	24 hours	30 MPa	40 MPa	
	7 days	55 MPa	60 MPa	
	28 days	65 MPa	65 MPa	
Modulus of Elasticity in Compression	Cured 28 d at 20 °C	30 GPa		(EN 12390-13)

Tensile Strength in Flexure

Conditioned 24 h at 20 °C	4 MPa
Conditioned 7 d at 20 °C	8 MPa
Conditioned 28 d at 20 °C	9 MPa

(EN 196-1)

APPLICATION INFORMATION

Mixing Ratio	Thixotropic consistency	3.75 L to 4.0 L of water for 25 kg of powder
	Thixotropic consistency — water ratio by weight	15 % to 16 %
Fresh mortar density	2.2 kg/L	
Yield	13 L of grout per 25 kg bag	
Layer Thickness	Maximum	80 mm
	Minimum	10 mm
Product Temperature	Maximum	+35 °C
	Minimum	+5 °C
Ambient Air Temperature	Maximum	+35 °C
	Minimum	+5 °C
Substrate Temperature	Maximum	+35 °C
	Minimum	+5 °C
Pot Life	At 20 °C	50 minutes
	Pot life depends on temperature Pot life will be shorter at higher temperatures. Pot life will be longer at lower temperatures.	

BASIS OF PRODUCT DATA

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

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 PREPARATION

CONCRETE IMPORTANT

Concrete must be sound and clean

The concrete must be structurally sound, thoroughly clean, free from oil, grease, dust, loose material, surface contamination and materials which will impair the grout flow or reduce adhesion strength.

1. Remove, laitance, delaminated, weak, damaged and deteriorated concrete using appropriate preparation equipment to provide a textured finish and exposing

the aggregate.

2. Clean any pockets or holes for structural fixings from all debris and water.

STEEL IMPORTANT

Steel must be free from contaminants

The steel must be thoroughly clean, free from oil, grease, dust, loose material, surface contamination and materials which will impair the grout flow or reduce adhesion strength.

1. Clean the substrate from oil, grease, rust and scale by appropriate grinding, abrading or shot blasting equipment.

MIXING

ELECTRIC SINGLE OR DOUBLE PADDLE MIXER

IMPORTANT

Do not add more water than the maximum specified

1. Pour the minimum amount of water into a suitable clean mixing container.
2. Stir the water slowly with a spiral paddle (300 to 500 rpm).
3. Add the complete bag of powder into the water.
4. Mix continuously for 3 minutes to achieve a uniform and lump free smooth consistency.
5. Add more water within the mixing time up to the maximum allowed until the required consistency is achieved.
6. Wait for 2 to 3 minutes to release entrained air bubbles.

7. Mix again for 1 more minute.

GROUT MIXER

IMPORTANT

Carry out equipment trials

Carry out equipment trials to make sure the Product can be mixed satisfactorily before full project application.

IMPORTANT

Do not use continuous mixing equipment

The Product is not designed for processing with continuous mixing equipment.

1. Pour the minimum water ratio in the correct proportion into the grout mixer.
2. While stirring the water, slowly add the powder.
3. Add more water within the mixing time up to the maximum allowed until the required consistency is achieved.
4. Mix continuously for a minimum of 3 minutes. For larger mixes the mixing time must be extended to approximately 5 minutes or as necessary.
5. Mix until the grout achieves a lump free smooth consistency.

APPLICATION

IMPORTANT

Application in the direct sun or strong winds

Avoid application in direct sun, strong winds or both to reduce the risk of the Product cracking.

PRE-WETTING

1. Thoroughly saturate the prepared concrete substrate with clean water for a recommended 2 hours before application of the grout.
2. Do not allow the substrate to dry within this time.
3. Remove all water from within the formwork, cavities or pockets.

The final surface must achieve a dark matt appearance (saturated surface dry) without glistening.

PLACING

The Product is applied manually.

Cold weather working

Risk of reduced strength gain and physical properties

1. Store bags in a warm environment.
2. Use warm mixing water to assist with achieving strength gain and maintaining physical properties.

Hot weather working

Increased risk of cracking and reduction of physical properties

1. Store bags in a cool environment.
2. Use cold mixing water to assist with controlling the exothermic reaction to reduce cracking and maintaining physical properties.

CURING TREATMENT

Protect exposed grout surfaces after finishing from premature drying and cracking using an appropriate

curing method e.g. curing compound, moist geo-textile membrane, hessian or polythene sheet.

In cold weather, apply insulated blankets to maintain a constant temperature to prevent surface damage from freezing and frost.

CLEANING OF TOOLS

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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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