

# PRODUCT DATA SHEET

## SikaGrout® Ultra

FLOWABLE, ~100MPa ULTRA HIGH STRENGTH CEMENTITIOUS GROUT

### DESCRIPTION

SikaGrout®-Ultra is a ready mixed, high quality cement grout that expands in two stages (class A and C) to counteract the shrinkage normally associated with Portland cement grouts.

SikaGrout®-Ultra is a blend of Portland cement, carefully selected and graded aggregates and Sika Admixtures, enabling it to be self levelling and achieve very high strengths in short times, making SikaGrout-Ultra suitable for critical grouting applications in the most demanding of circumstances.

### USES

- Grout projects requiring 100MPa compressive strengths
- Static load grouting
- Machine base plates
- Anchor bolting
- Bridge bearing pads
- Pre-cast concrete sections
- Shear Key Grouting

### CHARACTERISTICS / ADVANTAGES

- Self levelling capabilities
- Shrinkage compensated
- High early strengths – 35 MPa in 24 hours
- High 28 day strengths – greater than 100 MPa
- Does not segregate or bleed
- High impact and thermal resistance
- Non corrosive to steel or iron

### APPROVALS / CERTIFICATES

Approved by Qld TMR- Feb 2019,  
Section 5 Registered and Conforming Products,  
Part 5.33 Repair Materials (concrete)-Grouts

### PRODUCT INFORMATION

<b>Packaging</b>	20kg bags		
<b>Appearance / Colour</b>	Grey Cementitious Powder		
<b>Shelf life</b>	9 months from date of manufacture.		
<b>Storage conditions</b>	Store product in Dry conditions out of direct sunlight		
<b>Density</b>	2200 kg/m <sup>3</sup> approx. (dependent on water addition rate)		
<b>Maximum Grain Size</b>	Maximum aggregate size 0-2mm		
<b>Compressive Strength</b>	<b>Days</b>	<b>Result (MPa)</b>	AS1478.2 - 2005 @ 23°C
	1 Day	~40	
	7 Days	~80	
	28 Days	~100	

<b>Expansion</b>	Days	Height Change %	ASTM C1090-01 @23°C
	1 Day	~0.02	
	3 Days	~0.02	
	14 Days	~0.03	
	28 Days	~0.03	
<b>Electrical Resistivity</b>	Days	Result (Ω.cm)	FM-578 werner Probe 38mm spacing
	7 Day	~8,500	
	28 Days	~12,500	
	56 Days	~16,500	

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Add 2.7l of water per 20kg bag		
<b>Yield</b>	Yield per 20kg bag approx. 11lt Approx. number of 20kg bags per 1m <sup>3</sup> - 91bags		
<b>Layer Thickness</b>	10-100mm Thicker pours should be done in stages or have stone aggregate added to reduce the exothermic heat. Contact Sika's Technical Department for further information.		
<b>Flowability</b>	Initial Flow 300mm	Flow Retention @ 30min 270mm	QCM002-Sika Test Method - Spread on glass
<b>Pot Life</b>	approx. 35mins @ 23°C		
<b>Initial Set Time</b>	23°C	~3 hrs	AS2350.4 - 2006
<b>Setting Time</b>	23°C	~4hrs	AS2350.4 - 2006

## APPLICATION INSTRUCTIONS

### EQUIPMENT

SikaGrout-Ultra must be mechanically mixed using a mechanical grout mixer or a suitable drum mixer. The grout mixer will reduce the chances of the mix becoming lumpy or aerated. Smaller quantities should be mixed in clean drum using an electric drill and spiral drill and spiral mixer at a speed of approximately 500 rpm. DO NOT MIX BY HAND or MIX PART BAGS.

### MIXING

Add 2.7 litres of water per 20 kg bag.  
Add the powder to the total water while mixing.  
Mix until the grout appears homogenous (5-6 minutes). Allow to stand so any entrapped air can escape. Do not add more water to increase flow of the grout if a mix has stiffened due to time delays. If the grout is unworkable discard.

### APPLICATION

SikaGrout-Ultra can be placed by either gravity flow or by pump. It is essential that proper placing on the job site is practised to ensure placement is completed without problems. Sufficient labour, grout and equipment must be present to ensure continuous placement.

Gravity -

Mixed grout should be poured one side of the void to avoid air entrapment. Grout is best poured over short

distances to ensure this. Use a suitable header box, maintaining the grout head at all times to ensure continuous flow.

To facilitate grout compaction and top plate contact, use rodding, tamping or flexible strapping in short strokes while maintaining an adequate head of grout. Do not vibrate as this will cause segregation. Any adjacent machinery or equipment causing vibration should be shut down until initial set (approx. 3 hours).

Pumping -

When pumping SikaGrout-Ultra, ensure the pump is suitable for the grout consistency and for the distance and height it is to be pumped. A positive displacement pump is recommended. Place grout by pumping into the farthest corner, filling the space gradually. Ensure that air is not entrapped under the base plate.

### CURING TREATMENT

Suitable curing methods such as plastic sheet, wet hessian, liquid membrane (eg, Antisol curing membranes) etc. must be used to protect the freshly applied grout from the drying effects of sun and wind. Curing must commence immediately after placement, and continue for at least 7 days. Curing is vital to the ultimate performance of grout as it allows optimum strength development and ensures tight contact with the base-plate.

### CLEANING OF EQUIPMENT

Remove uncured SikaGrout-Ultra from tools and equipment with water. Hardened material can only be

removed mechanically.

## FURTHER INFORMATION

Sikagrout and Sikadur products are tested in accordance with Australian Standards and/or Internationally accepted Standards. The published performance data is achieved by testing strictly in accordance to the procedures of these standards.

Any test procedures performed by others on our products that are not in strict accordance with the standard in every facet will likely produce results different from the published above. On site testing by others can be affected by external factors such as incorrect mixing methods, poor sampling techniques, varying temperatures, curing, crushing procedures etc. Sika can provide Certificates of Compliance of all products delivered to site prior to installation if required.

If results of site testing or testing facilities by others vary from the Sika published data we recommend the following items be reviewed before contacting the manufacturer as one or all of these items could be influencing the results attained on site.

These include but are not limited to the following: site conditions, ambient, substrate and product temperature, mixing equipment, mixer speed, pump equipment, contractor experience, and incorrect test methods.

Sika Australia do not take responsibility nor have to make a case for any such tests where results of testing by others do not achieve the published data as above.

## 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.

## 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.

## ECOLOGY, HEALTH AND SAFETY

### 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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