



# PRODUCT DATA SHEET

# King® HS Cable

SHRINKAGE COMPENSATED SULPHATE RESISTANCE GROUT MATERIAL FOR ANCHORING APPLICATIONS

## PRODUCT DESCRIPTION

King® HS Cable is a neat, high performance, shrinkage-compensated, anchoring grout. It is an unsanded, Portland cement-based, expanding, shrinkage-compensated, anchoring grout containing silica fume and other carefully selected components. King® HS Cable resists water washout, making it ideal for anchoring cables, tendons or bolts in rock or soil media containing sulphates.

#### WHERE TO USE

- For most grouted anchor requirements including, cable bolting, earth tie-backs for excavation or soil stabilization, grouting anchors in tunnel support systems, re-bar grouting and grouting soil or rock tendons for anchoring piles or foundation structures
- Infill of pipe piles
- Structural grout medium for injection-bored micropiles
- Grouting conventionnally bored micropiles
- Post-grouting of micropile installations

# **CHARACTERISTICS / ADVANTAGES**

- Excellent resistance to sulphate attack
- Cementitious content meets the Type HS requirements of CSA A 3001
- Superior early strength gain, allowing early tensioning of anchors
- Resistant to water wash-out and dilution by water in wet ground conditions
- Excellent pumpability
- Reduced bleeding
- Very low permeability

# PRODUCT INFORMATION

Packaging	<ul> <li>30 kg (66 lb) bags</li> <li>*Products can be custom packaged to suit specific job requirements</li> </ul>	
Shelf Life	12 months in original, unopened packaging	
Storage Conditions	Store dry, ensuring that product is not exposed to rain, condensation or high humidity	
Density	Mass density	ASTM C109
	1875 kg/m³ (117lb/ft³)	
TECHNICAL INFORMATION		
Expansion	3–6 % (volume unconfined)	ASTM C940

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Chloride Ion Diffusion Resistance	Chloride ion penetrability		ASTM C1202
	1500 Coulombs		
Bleeding	Nil		ASTM C940
	Segregation	Nil	

#### APPLICATION INFORMATION

Mixing Ratio	US gal.) to 11.0 L (2.9 US gal.). Note that a lower / 2.38 US gal.) should be used to achieve pumpa	For a 30 kg (66 lb) bag, the recommended volume of water is 9.0 L (2.38 US gal.) to 11.0 L (2.9 US gal.). Note that a lower water:material ratio (9.0 L / 2.38 US gal.) should be used to achieve pumpable consistencies while a nigher water:material ratio (11.0 L / 2.9 US gal.) should be used for flowable consistencies.	
Yield	Approx. 0.020 m³ (0.7 ft³) / 30 kg (66 lb) bag	Approx. 0.020 m³ (0.7 ft³) / 30 kg (66 lb) bag	
Flowability	FLOW	ASTM C939	
	20–30 seconds		

# **BASIS OF PRODUCT DATA**

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

#### WHERE TO USE

- Not recommended for areas subjected to extremely high vibrations.
- Adhere strictly to recommended water additions.
- Exceeding the recommended water:material ratio will result in reduced compressive strengths and inferior physical properties.
- Do not use mortar-style mixer to mix material.

# **ENVIRONMENT, HEALTH & SAFETY**

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

#### APPLICATION INSTRUCTIONS

#### **MIXING**

Mix King® HS Cable to the consistency required for placement.

Note that King® HS Cable's thixotropic properties make the grout appear thick and cohesive when it is in fact very pumpable. Introduce potable water into a high shear mixer and then add progressively the powder while operating at medium speed.

Increase mixer speed and continue mixing at high speed for two (2) minutes. Decrease mixer speed to low and continue mixing while placing the grout. The time between mixing and pumping of the batch should not exceed 15 minutes.

#### **CLEAN UP**

Clean all tools and equipment after use with water. Once hardened, the product 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 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.

