

# PRODUCT DATA SHEET

## King® PC-S10 UG35

### 35 MPa CONCRETE MATERIAL FOR UNDERGROUND APPLICATIONS

#### PRODUCT DESCRIPTION

King® PC-S10 UG35 is a pre-blended and pre-packaged, 35 MPa concrete mix designed for underground construction. King® PC-S10 UG35 is formulated with Portland cement, fine and coarse aggregates and other carefully selected components.

#### WHERE TO USE

Construction of concrete floor slabs, walls, grizzlies, door frames and other underground concrete structures

#### CHARACTERISTICS / ADVANTAGES

- Requires only the addition of water
- Excellent pumpability

#### PRODUCT INFORMATION

<b>Packaging</b>	<ul style="list-style-type: none"> <li>▪ 30 kg (66 lb) triple-lined bags</li> <li>▪ 1 000 kg (2 205 lb) FIBC</li> </ul> <p><i>*Custom packaging is available to suit specific project requirements</i></p>		
<b>Shelf Life</b>	12 months in original, unopened packaging		
<b>Storage Conditions</b>	Store dry, ensuring that product is not exposed to rain, condensation or high humidity.		
<b>Density</b>	<b>MASS DENSITY</b>		<b>ASTM C39</b>
	2375 kg/m <sup>3</sup> (148lb/ft <sup>3</sup> )		
<b>Compressive Strength</b>	3 days	21 MPa (3000 psi)	<b>ASTM C39</b>
	7 days	25 MPa (3620 psi)	
	28 days	35 MPa (5070 psi)	
<b>Tensile Strength in Flexure</b>	<b>FLEXURAL STRENGTH</b>		<b>ASTM C78</b>
	28 days	6 MPa (2030 psi)	
<b>Yield</b>	<ul style="list-style-type: none"> <li>▪ Approx. 0.014 m<sup>3</sup> (0.5 ft<sup>3</sup>) / 30 kg (66 lb) bag</li> <li>▪ Approx. 0.45 m<sup>3</sup> (16.5 ft<sup>3</sup>) / 1000 kg (2205 lb) bag</li> </ul>		
<b>Curing Time</b>	<p>Good curing conditions are beneficial to optimizing physical properties. Although the high relative humidity commonly found in underground environments provides for good curing conditions, additional curing is often appropriate and should be performed in accordance with ACI 308 "Standard Practice for Curing Concrete".</p>		

## 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.

## 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.

### MIXING

Mix material at a maximum water:cement ratio of 0.5 [100 L (26.5 US gal.) per 1000 kg (2205 lb) FIBC]. Maximum slump should be 100 mm (4 in). For mixing instructions, follow recommendations of concrete mixer manufacturer.

### APPLICATION

Place material uniformly and consolidate by vibrating. Ensure material has completely encapsulated any rebar or welded wire mesh.

Refer to ACI 304 R "*Guide for Measuring, Mixing, Transporting and Placing Concrete*".

**Formwork:** Any formwork should be rigid and tight to prevent loss of material. For formed applications, refer to ACI 347, "*Recommended Practice for Concrete Formwork*".

### OPTIMUM PERFORMANCE

- King® PC-S10 UG35 can be mixed using a KING CCM 200 Continuous Mixer (contact a SikaTechnical Representative for details)
- King® PC-S10 UG35 can also be poured using a dry-mix shotcrete machine and a KING Separator Box (contact a Sika Technical Representative for details)

## 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.