

## PRODUCT DATA SHEET

# King® PC-S6 UG35 RT2

35 MPa concrete mix for underground applications

### PRODUCT DESCRIPTION

King® PC-S6 UG35 RT2 is a pre-blended and pre-packaged 35 MPa concrete mix with extended pot life specially designed for underground construction in deeper mine levels where temperatures exceed 30 °C. King® PC-S6 UG35 RT2 is formulated with Portland cement, fine and coarse aggregates and other carefully selected components.

### CHARACTERISTICS / ADVANTAGES

- Requires only the addition of water
- Excellent pumpability

### WHERE TO USE

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

### PRODUCT INFORMATION

|                    |                                                                                         |  |          |
|--------------------|-----------------------------------------------------------------------------------------|--|----------|
| Packaging          | 1000 kg (2205 lb) bag                                                                   |  |          |
| 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 C39 |
|                    | 2375 kg/m <sup>3</sup>                                                                  |  |          |

### TECHNICAL INFORMATION

|                      |         |                   |          |
|----------------------|---------|-------------------|----------|
| Compressive Strength | 3 days  | 21 MPa (3000 psi) | ASTM C39 |
|                      | 7 days  | 25 MPa (3620 psi) |          |
|                      | 28 days | 35 MPa (5070 psi) |          |

### APPLICATION INFORMATION

|          |                                                                                                                                                                                                         |  |  |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Yield    | Approx. 0.45 m <sup>3</sup> (16.5 ft <sup>3</sup> • ) / 1000 kg (2205 lb) bag                                                                                                                           |  |  |
| Pot Life | 4 hours                                                                                                                                                                                                 |  |  |
|          | *Data was obtained under laboratory conditions with material and ambient temperatures in between 30 °C and 35 °C . Higher or lower temperatures can respectively reduce or increase slump and pot life. |  |  |

## 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

The User is responsible for the proper use of the product. Site visits by Sika personnel are for the sole purpose of providing technical recommendations and are in no way intended to supervise or control the quality of work on site.

## 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® PC-S6 UG35 RT2 at a maximum water:ce-ment ratio of 0.50 [100 L (26.5 US gal) per 1000 kg (2205 lb) FIBC]. Maximum slump should be 150 mm (5.9 in) without bleeding and segregation.

For mixing instructions, follow recommendations of concrete mixer manufacturer.

### APPLICATION

Place King® PC-S6 UG35 RT2 uniformly and consolidate material 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".

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

### CURING TREATMENT

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".

## CLEAN UP

Clean all tools and equipment immediately after use with water. Once hardened, material can only be removed mechanically.

## 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.