

PRODUCT DATA SHEET

Sikacrete® Micro SCC UW

SELF-COMPACTING LOW HEAT MICRO CONCRETE FOR UNDERWATER APPLICATION

DESCRIPTION

SikaCrete® Micro SCC UW is a self-compacting, cementitious micro concrete, with extended working time to suit local ambient temperatures.

SikaCrete® Micro SCC UW is a ready to use micro concrete that can be used for underwater applications. When mixed and placed correctly, the micro concrete will have no significant 'wash out' of the cement paste.

USES

SikaCrete® Micro SCC UW is suitable for larger underwater repairs to reinforced concrete structures employing the tremie concrete placement method.

- Bridges columns
- Pillars
- Piles
- Dams

CHARACTERISTICS / ADVANTAGES

- There is no significant 'wash-out' of cement paste when placed underwater
- Excellent flowability
- Good dimensional stability
- High strengths, Adjustable consistency
- No Bleeding
- Non toxic, non corrosive
- Ready and easy to use
- Economical
- Self compacting

PRODUCT INFORMATION

Packaging	25 kg/ bag
Appearance / Colour	Grey powder / Maximum aggregate size 8mm
Shelf life	9 months from date of production if stored properly in undamaged and unopened, original sealed packaging.
Storage conditions	Store in dry conditions.
Density	~ 2.3 kg / litre fresh density of micro concrete

TECHNICAL INFORMATION

Compressive Strength	1 day ~ 20 N/mm ² 7 days ~ 38 N/mm ² 28 days ~ 55 N/mm ²	(ASTM C-109)
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APPLICATION INFORMATION

Mixing Ratio	Powder should be added to the pre-gauged water to suit the desired consistency. For inverted cone of 5 second, approx. 2.20 litres of water should be used. Mix mechanically with a plough share type concrete mixer. Mixing Time: Approximately 4 minutes.
Yield	11.8 litre per 25 kg/bag or 85 bags for 1 m ³ fresh micro concrete

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

All surfaces must be clean, sound and free from oils, grease or other surface contaminants. If the concrete surface is defective, or has laitance, it must be cut back to a sound base.

Permanently immersed substrates should be prepared by sand blasting or high pressure water jet.

Non-permanently immersed substrates can also be prepared this way, or by scabbling.

The formwork used must be leak proof to allow SikaCrete[®] Micro SCC UW to be free Flowing.

MIXING

SikaCrete[®] Micro SCC UW must be mechanically mixed using a mechanical forced action mixer (maximum speed: 500 rpm).

It is essential that mixing is carried out in a manner so that the pouring operation may continue without interruption.

APPLICATION

SikaCrete[®] Micro SCC UW can be poured through a tremie pipe or pumped through a flexible tube (minimum diameter of 50 mm.) to the lowest section of the form. The lower end of the pipe or flexible tube when raised during the placement must be kept immersed in the fresh concrete so that the rising concrete from the bottom displaces the water.

Make sure, that necessary formwork is firmly in place and leak proof. The micro concrete flow must be restricted during the pour so that the water is not entrapped.

CURING TREATMENT

Curing will not be required in submerged situations. For application above the water level should be cured using suitable methods such as plastic sheeting, wet hessian, or Antisol[®] liquid membranes.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with hot water immediately after use.

Hardened / cured material can only be mechanically removed.

IMPORTANT CONSIDERATIONS

Use SikaCrete[®] Micro SCC UW for concrete works:

- Min.layer thickness/ clearance 25 mm. Maximum layer Thickness : 100 mm.
- At temperatures lower than 20°C setting time and strength gain will be slower.
- For applications above water level, normal curing practice should be observed for at least 3 days.
- Never raise the tube used to place SikaCrete[®] Micro SCC UW above surface level of the micro concrete.

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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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 Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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