

SikaRep® Microcrete-4

Ready to use non-shrink, cementitious micro concrete

Product Description

SikaRep® Microcrete-4 is factory designed pourable, non shrink, repair concrete with selected cement, aggregate and other chemicals. Recommended water and coarse aggregate to be added at site as per requirement.

Uses

SikaRep® Microcrete-4 is mainly recommended for the repair of damaged concrete structures e.g.

- Columns
- Beams
- Slabs, etc.
- It is also recommended for grouting of large gaps.

Characteristics / Advantages

- A properly designed concrete which can be pumped or poured into restricted
- Placement without any vibration.
- Expansion system compensates for shrinkage settlement in plastic stage.
- Easy to mix and apply, high flow characteristic, rapid strength development,
- good bond with old concrete
- Contains no added chloride

Product Data

Form

Appearance / Colour Grey powder

Packaging 25 kg bags.

Storage

Storage Conditions / Shelf-Life 6 months from date of production if stored properly in undamaged and unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +40°C. Protect from moisture, direct sunlight and frost.

Technical Data

Bulk Density 1.2 kg/l (of fresh mortar) at 27 °C

pH Value 11 - 13.5 when mixed with water (ready to pour).

Mechanical / Physical Properties



Compressive Strength	(According to ASTM C 1107 – 99)	
	Curing Time	Curing Temperature (30°C)
	1 day	≥ 25
	3 days	≥35
	7 days	≥45
	28 days	≥65
Flexural Strength	(According to ASTM C 293 – 79)	
	Curing Time	Curing Temperature (30°C)
	7 days	≥4.0
	28 days	≥5.0
Tensile Strength	(According to ASTM D 412 – 87)	
	Curing Time	Curing Temperature (30°C)
	7 days	≥2.0
	28 days	≥3.0
Note	The above mentioned values are based on concrete produced by mixing SikaRep® Microcrete-4 and 10mm down aggregate in proportion of 2:1 (by weight).	
System Information		
Application Details		
Consumption	1760 kg of powder/ cubic metre of concrete	
Productiveness	1 bag yields approximately 13.5 litres of mortar.	
Substrate Preparation	All concrete surfaces should be clean, sound and free from loose particles, oil, grease, etc. Metal surfaces should be scale, rust, oil and grease.	
Application Instructions		
Mixing Time	SikaRep® Microcrete-4 can be mixed both in paddle type and slow speed grouting mixture or drum type concrete mixer. In both the cases the powder SikaRep® Microcrete-4 is to be added to water and mix till a pourable consistency is obtained with recommended water –powder ratio as per technical data. Do not mix more Microcrete that can be used within 15 minutes. DO NOT ADD ANY EXTRA WATER. For field mixing Sika technical department may be consulted.	
Application Method/ Tools	Pour the SikaRep® Microcrete-4 after mixing into the area to be covered /filled. During filling if required, ensure proper air displacement.	
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.	
Notes on Application / Limitations	When ready to pour SikaRep® Microcrete-4 is workable for 20 minutes after mixing at +30°C).	
Value Base	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.	
Health and Safety Information	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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