

PRODUCT DATA SHEET

SikaEmaco® S 466

(formerly MEmaco S 466)

PUMPABLE, FREE FLOWING, SHRINKAGE COMPENSATED MICRO-CONCRETE FOR GROUTING AND REPAIR

DESCRIPTION

SikaEmaco® S 466 is a cementitious, pre-bagged, free flowing, one component, non-shrink precision micro-concrete with high early and ultimate strength. Suitable for use in hot and tropical climatic conditions.

USES

SikaEmaco® S 466 precision micro-concrete is used for repair and grouting in various applications such as:

- Structural repair of deteriorated concrete
- Columns in precast construction
- Casting sections or members where the volumes required are too large for conventional grouts, and too small and inaccessible for normal concreting applications.
- Cavities, gaps and recesses
- Re-profiling of damaged concrete members and re-profiling of pile tops using formwork for both pouring and pumping techniques.

FEATURES

SikaEmaco® S 466 is an easy to use precision micro-concrete requiring only the addition of water. It offers the following beneficial properties:

- Easy to mix
- Very good flow characteristics
- Adjustable consistency
- Moderate heat of hydration
- Shrinkage compensated
- High final strength
- Non-flammable
- Vapour permeable
- Compatible with the properties of typical concrete

PRODUCT INFORMATION

Composition	Portland cement, selected fillers and aggregates, special additives
Packaging	30 kg bag
Appearance and colour	Grey powder
Shelf life	12 months from date of production
Storage conditions	Store in original unopened packaging in a cool and dry condition between +5 °C and +35 °C. Protect from direct sunlight, heat and moisture.

TECHNICAL INFORMATION

Compressive strength	Time	Compressive Strength	(ASTM C109)
	1 day	≥ 25 N/mm ²	
	3 days	≥ 35 N/mm ²	
	7 days	≥ 45 N/mm ²	
	28 days	≥ 55 N/mm ²	

APPLICATION INFORMATION

Mixing ratio	4.2 L of water per 30 kg bag
Yield	~ 15 L per 30 kg bag
Layer thickness	Min. 25 mm per pour Max. 150 mm per pour
Ambient air temperature	+5 °C min. / +35 °C max.
Substrate temperature	+5 °C min. / +35 °C max.
Pot Life	~ 20 min

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.
- Internal Reference - Version: MBS_CC-UAE/Em_S466_05_96/v2/11_15/v3/09_19/v4/06_22

IMPORTANT CONSIDERATIONS

- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- When maximum thickness exceeds 150 mm, consider the use of Sikacrete® -114.
- At high temperatures, use chilled water for mixing to keep the grout temperature below 30 °C.
- In hot weather, base plates and foundations must be shaded from direct sunlight. Condition bags < 30 °C prior to use.
- For additional information on SikaEmaco® S 466 or other grouting materials contact Sika Technical Department.

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete:

The concrete surface shall be sound, clean, and free from dust, loose material, and any contaminants that could reduce adhesion. All weak, damaged, or deteriorated concrete shall be removed using appropriate mechanical methods, and the surface prepared to achieve an adequate profile and roughness. Prior to application, the substrate should be pre-wetted as required to achieve the correct surface condition. Where improved adhesion is required, or for dense or large-area concrete substrates, the use of a suitable bonding agent is recommended. For guidance on appropriate Sika bonding systems and detailed substrate preparation procedures, please contact the Sika Technical Department.

Steel Reinforcement:

All rust, scale, mortar, concrete residues, dust, and other contaminants that may reduce bond or promote corrosion shall be completely removed. Steel surfaces shall be prepared using appropriate methods such as abrasive blast cleaning or high-pressure water-blasting to achieve a minimum standard of SA 2 (ISO 8501-1). Following cleaning, exposed reinforcement shall be protected with a suitable anticorrosion coating. For guidance on the selection of appropriate Sika anticorrosion systems and detailed preparation procedures, please contact the Sika Technical Department. Reference shall be made to EN 1504-10 for specific requirements.

MIXING

Add water according to the desired consistency into a clean mixing vessel before slowly adding the SikaEmaco® S 466 powder. SikaEmaco® S 466 is best mixed in a forced action mixer, for 2 to 3 minutes or until the mix is free of lumps, not longer than 5 minutes. Slow speed drill (maximum 500 rpm) can be also used for mixing. Normal tumble type concrete mixers are not suitable. Do not mix more grout than can be placed within 15 to 20 minutes. Do not add extra water or other ingredients. Mix only full bags for the best result.

Note: Always start with minimum recommended quantity of water (water/powder ratio), only if required, gradually add water to desired consistency. Do not exceed maximum allowed limit of water per bag weight.

APPLICATION

Before pouring let the mixed grout stand for approximately 5 minutes after mixing to allow entrapped air to escape. Pour into the prepared area such that the grout has the shortest distance to travel. Ensure that air displaced by the grout is allowed to escape. When carrying out the base plate grouting, ensure a sufficient head of pressure to keep the mortar flowing. All exposed areas of the mortar surface should be kept as small as possible.

CURING TREATMENT

Treatment of exposed surfaces with Sika® Antisol® range curing compound, is highly recommended for large areas of application. Use other approved curing methods such as polyethylene sheeting or wet hessian only for small exposed areas. Do not commence fogging until final set has been reached.

CLEANING OF EQUIPMENT

Clean equipment and mixer immediately after application with water. Hardened material can only be removed mechanically.

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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