

PRODUCT DATA SHEET

SikaEmaco® S 322

(formerly MEmaco S 322)

NON SHRINK, NATURAL AGGREGATE, FIBRE REINFORCED FOR MARINE ENVIRONMENT STRUCTURE AND CONCRETE REPAIR

DESCRIPTION

SikaEmaco® S 322 is a non-shrink, natural aggregate grout with excellent high early and ultimate strengths. It is specially formulated for marine environment, while providing extended working time even at high ambient temperatures when mixed and placed at any recommended consistency.

SikaEmaco® S 322 compensates shrinkage in both plastic and hardened states and meets specification of ASTM C-1107. SikaEmaco® S 322 also has an excellent impermeability against salt water and high durability due to the existence of silica fume.

USES

All non-shrink grouting application in marine environment structure with clearances of 10 mm or more including :

- Maintenance of civil structures.
- Extensive repair to beams, slab and other structural elements.
- Reinstatement of honeycombed or defective structural concrete.
- High slump and good pumpability for formed applications.

PRODUCT INFORMATION

Packaging	25 kg bag	
Shelf life	9 months from date of production in stored in undamaged and unopened original sealed bags.	
Storage conditions	Store in dry condition between +10 °C - +35 °C.	
Appearance and colour	Powder / Grey	
Density	Flowable	2.25 kg/L

FEATURES

- **High Early strength** – ensure rapid commissioning of new structures and minimum downtime on repair work.
- **Flowable long life repair mortar** – easy to fill intricate spaces normally inaccessible by conventional repair technique.
- **Extended working time** – Facilitates grouting of large or difficult placements in a single pour, often without the use of a pump.
- **Non Staining** – Contains no metallic aggregates and is similar in appearance to plain concrete. Suitable for fine architectural finishes.
- **Easy to use** – Requires no special mixing equipment. It can be mixed in a standard concrete mixer or in a pail using grout stirrer.
- **Dual expansion systems for controlled expansion** – Dense and non shrink, even in the hardened state.

TECHNICAL INFORMATION

Compressive strength	1 day	30 MPa	(ASTM C-1107)
	3 days	50 MPa	
	7 days	60 MPa	
	28 days	70 MPa	
Flexural-strength	28 days	10.5 MPa	
Tensile strength	28 days	5.5 MPa	

APPLICATION INFORMATION

Yield	13 Litres
Layer thickness	Recommended thickness is 10 mm - 150 mm
Flowability	Flow Trough 20 - 50 cm
Mixing ratio	4.2 L per 25 kg bag
Initial set time	5 hours
Final set time	6 hours

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.

ECOLOGY, HEALTH AND 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

SUBSTRATE PREPARATION

The substrates should be properly prepared and should be free from contamination, laitance and loose material. Thoroughly saturate the substrate with water at least 2 – 3 hours prior to pouring the grout. All free water ponding should be blown out of the void just before pouring the grout. As for all cementitious materials curing is essential to prevent rapid drying out of the grout and shrinkage caused by the water loss. Curing should be effected by accepted methods such as curing compound, polythene sheet, wet hessian or water ponding.

SUBSTRATE QUALITY / PRE-TREATMENT

MIXING

SikaEmaco® S 322 is supplied in a ready to use form requiring the addition of water only. DO NOT use hardened or lumpy grout caused by torn or water-damaged bags. Mix with drinkable water only. DO NOT MIX BY HAND. For small quantities use a grout stirrer and slow speed electric drill, adding all mixing water to empty pail, then add dry grout in a steady stream while mixing. Continue mixing for approximately 2 minutes. For larger quantities a paddle type mortar mixer is preferred. Add 80% or mixing water first, then dry grout to form a stiff consistency. Continue mixing at this consistency for about 1 minute. Add remainder of water steadily until desired consistency is achieved. Total mix. time should be 4 to 5 minutes. Do not use excess water. Discard any grout that has been left so long it has stiffened. Do not re- temper.

APPLICATION

SikaEmaco® S 322 has been formulated for placing by pouring or pumping to required thickness. Its extended working life properties allow sufficient time for placement to be completed without problems. However, proper planning and organization on the job site is essential. Recommended thickness is between 10 mm and 150 mm. Sufficient labour and machine mixing capacity must be available to ensure continuous placement.

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.

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