

Sikacrete®-Gunit 103

Silica Fume Based Gunit Mortar for Concrete Repair

Product Description	Sikacrete®-Gunit 103 is a one component, un-accelerated, cementitious silica-fume based gunit mortar. Suitable for use in hot and tropical climatic conditions.
Uses	Sikacrete®-Gunit 103 is typically used in applications for dry-spray gunit such as: <ul style="list-style-type: none">■ Concrete repair work■ Levelling of large areas■ High strength mortar■ Cathodic Protection overlay mortar
Advantages	Sikacrete®-Gunit 103 is a ready for use, one-component material providing the following benefits: <ul style="list-style-type: none">■ Excellent workability■ Can be trowelled and screeded after application■ High density■ Good adhesion to the substrate■ Very little rebound■ Sulphate resistant
Certificates	EMPA, Federal Material Testing Laboratory (Dübendorf, Switzerland) LPM, Laboratory for Preparation and Methology (Beinwil am See, Switzerland) Al-Futtaim Tarmac Test Report (United Arab Emirates)
Product Data	
Type	Mixture of silica fume and other additives
Form	Grey Powder
Packaging	25 kg Bags
Storage Condition	Store in a dry area in unopened original packing at temperatures between +5°C and +35°C. Protect from direct sunlight.
Storage Conditions Shelf life	12 months minimum from production date if stored properly in original unopened packaging



Technical Data

Density (at 20°C)	Bulk density = 1.7 kg/lt. Mixed density = 2.2 kg/lt.
Particle Grading	0 - 3 mm
Compressive strength	50 - 60 N/mm ² (water 14%)
Flexural strength	9 - 10 N/mm ²
Adhesion	1.5 - 2.5 N/mm ² (on concrete, sandblasted)
Modulus of elasticity	32'000 N/mm ² (static)
Resistivity	Approx. 40-50 kΩcm
Thickness	Minimum 9 mm Maximum 50 mm or build up in more than one coat
Chloride content	Nil (EN 934-2)

Application Details

Coverage	Approx. 22-25 kg/m ² per 10 mm applied thickness of Sikacrete®-Gunit 103 as a general guide. The rate of coverage depends on the surface texture of the substrate, the location of the area to be sprayed (overhead or vertical) and the thickness of the applied coating.
Surface Preparation	Concrete, mortar, stone: surfaces must be clean and free from all traces of loose material, laitance, oil and grease. Iron, steel: surfaces must be clean and free from all traces of oil, grease and rust. The substrate should be wetted down prior to application. When applying over critical substrates or reinforced concrete damaged by corrosion of the underlying steel, the use of SikaTop Armatec 110 EpoCem as a bonding agent is advised.
Method of Application	Sikacrete®-Gunit 103 may be applied using any type of small, dry-spray cement gun. When the substrate has been suitably prepared, wet down thoroughly (this is normally best done using the spray nozzle). Tip the dry gunitite mortar straight into the hopper of the cement gun; the required water is added at the nozzle. As soon as the final coat has been sprayed, the gunitite mortar can be trowelled and screeded. Any areas where the coverage is found to be inadequate must be re-sprayed in the proper manner; they should Not be patched with fresh rebound material scraped off the floor. Minimum application temperature is 5°C.
Curing	Where the work is exposed to intense sunlight or strong air currents, the freshly applied mortar should be kept damp and prevented from drying out too rapidly. For optimum strengths and performance characteristics the material should be applied by a skilled nozzle man, and good curing practice should be observed at all times.
Cleaning	Uncured mortar should be removed from tools with water. To clean dry-spray cement guns simply blow-out with compressed air. Once cured, the mortar can only be removed mechanically.
Equipment	Recommended equipment: ALIVA 240 or 246 Rotor capacity (acc. to model): up to 2 litres Hoses: ø 25/40 or 32/52 Nozzles: ø 25/15 or 32/18, 27
Notes	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.

Safety

For information and advice on the safe handling, storage and disposal of chemical products, users should 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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