

PRODUCT DATA SHEET

Sika MonoTop®-634

SCC FIBER REINFORCED POURABLE CEMENT MORTAR FOR FLOORS REPAIRING AND REPAIR OF CONCRETE ELEMENTS.

DESCRIPTION

Sika MonoTop®-634 is a one component premixed cement-based polymer modified, pourable consistency SCC for the reconstruction of cortical thickness in industrial floors and reconstruction or increase of cross sections of concrete structures.

The consistency of the mortar can be varied by changing the amount of mixing water according to instructions.

USES

Sika MonoTop®-634 is used to reconstruct the cortical layer of cementitious industrial floorings, internal and external, or for the packaging of supplementary casting by pouring into formwork.

- Suitable for restoration work (Principle 3, Method 3.1 and 3.2 of EN 1504-9) and detachment of damaged concrete in buildings, bridges, infrastructure and superstructures.
- Suitable for reinforcing structural interventions (Principle 4, method 4.4 of EN 1504-9); increases the load bearing capacity of concrete structures by the addition of mortar;
- Suitable for the conservation and restoration of liabilities (Principle 7, Method 7.1 and 7.2 of EN 1504-9).

CHARACTERISTICS / ADVANTAGES

- Increased thickness in a single layer
- Self Compacting
- Easy mixing and use
- High mechanical resistance to wear
- Good workability
- Shrinkage compensated

APPROVALS / CERTIFICATES

- Sika MonoTop®-634 fullfills the performance requirements of class R4 of EN 1504-3:2005; DoP nr. 72741837; certified by Factory Production Control Body: 0546; certificate 18774 and provided with the CE-mark.
- Sika MonoTop®-634 fullfills the performance requirements of class CT-C60-F10-AR1 of EN 13813:2002; DoP nr. 71066429; provided with CE mark.

PRODUCT INFORMATION

Composition	Pourable cement 1-component mortar.
Packaging	25 kg pre-dosed paper bags
Appearance / Colour	Grey-beige
Shelf life	12 months from date of production
Storage conditions	The product must be stored in tightly closed packaging, with all the precautions normally used for cement products.

Density	Appearing density of dry product	1.43 ± 0.05 kg/L	
	Density of hydrated mix	2.2 - 2.3 kg/L	(UNI 8995)

Maximum Grain Size Max. diameter 3.5 mm

Soluble Chloride Ion Content < 0.01% (EN 1015-17)

TECHNICAL INFORMATION

Compressive Strength	Class R4		(EN 1504-3)	
	~ 66 MPa		(EN 12190)	
	24 hours	3 days	7 days	(UNI 196-1)
	~ 25 MPa	~ 35 MPa	~ 45 MPa	

Modulus of Elasticity in Compression ~ 28 GPa (EN 13412)

Tensile Strength in Flexure ~ 10.1 MPa (UNI 196-1)

Tensile Adhesion Strength ~ 2.73 MPa (EN 1542)

Abrasion Resistance AR1 (70 µm) (EN 13892-4)

Thermal Compatibility Freeze-thaw (50 cycles):
~ 3.95 MPa (EN 13687-1)

Reaction to Fire Euroclass A1 (EN 13501-1)

Capillary Absorption ~ 0.48 kg m⁻²h^{-0.5} (EN 13057)

Chloride Ion Ingress < 0,01%* (EN 13396)
* Value got after 6 months at 10 mm of depth.

Carbonation Resistance Pass (EN 13295)

APPLICATION INFORMATION

Mixing Ratio 13 ÷ 15% of product weight (3.25 L ÷ 3.75 L per bag)

Consumption 1970 kg of product per m³ of mix, approx.

Layer Thickness Min. 10 mm - max. 100 mm

Consistency	~ 270 mm	Without shocks	(UNI 7044-72)
	> 78 cm	Initial	Reversed cone (EN 206)
	> 78 cm	After 20 min.	Reversed cone

Product Temperature +5°C min. / +35°C max.

Ambient Air Temperature +5°C min. / +35°C max.

Substrate Temperature +5°C min. / +35°C max.

Pot Life 30 min at + 20°C approx.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Preparation of substrate for floors:

Prepare the floor by removing loose particles, dirt, oil and grease, etc. so as to obtain a support healthy, clean and compact. The surfaces of floors should be treated by scarifying or similar case. In this case the substrate must always be previously treated mechanically, even if presented itself already rough or irregular. Carefully wet to the substrate by water.

Preparation of substrate for concrete repair:

The substrate must be prepared by suitable mechanical preparation techniques, such as high-pressure water cleaning or sandblasting. Cleaning methods free from effects of impact or vibration are preferable. The aggregates must be clearly visible on the surface of the prepared area. The edges of the area affected by the intervention will have to be cut perpendicular (90°) up to a minimum depth of 5 mm. Dampen the surface up to saturation. The wet surface should look dark opaque, not glossy, no standing water.

MIXING

Gradually pour Sika MonoTop®-634 in the mixing water. Mix thoroughly for 3 minutes at least to get a completely homogeneous mortar. The mixing should be carried out with a drill at low speed or with mixer for mortars preferably with vertical axis, taking care not to entrain air in the mix. Use a whole pack of MonoTop®-634 for each mixture; avoid partial mixing, which could result in an imperfect particle size distribution of the product.

APPLICATION

The product should be poured directly on the wet mat substrate or inside the formwork prepared for the casting. Using more than one mixer you can pour on the fresh material reducing construction joints. The product is pumped with suitable equipment. Protect the applied product from the sun and wind in the early hours of curing. Protect from water for at least 24 hours.

IMPORTANT CONSIDERATIONS

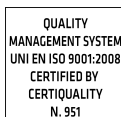
In case of floors castings that may exceed 100 mm in thickness, please consult our technical office. Mixing must always be performed with mechanical means: hand mixing does not allow to obtain the optimum workability. Do not add water to the mortar after his mixing. Keep moist and protected the surface of the applied mortar for a period of 24 hours at least after its application. In case of floor casting, especially outdoor, take all measures necessary to avoid a too rapid drying of the product in the early days of curing. Repair and thus protect the applied product from the action of direct sunlight and wind in the early hours of curing and hardening of the product. Do not cast floors in adverse weather conditions, which could last in the early stages of maturation, such as imminent rain or frost, strong winds, direct sunlight, etc.

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.

Sika Italia S.p.A.

Via Luigi Einaudi, 6
20068 Peschiera Borromeo (MI)
Phone: +39 02 54778 111
Fax: +39 02 54778 119
info@sika.it
www.sika.it



Product Data Sheet
Sika MonoTop®-634
February 2018, Version 03.01
020302040030000206

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 Safety Data Sheet (SDS) 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.

SikaMonoTop-634-en-IT-(02-2018)-3-1.pdf