

Product Data Sheet
Edition 19/10/2010
Identification no:
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Sika® MonoTop-620



BS EN 1504-2

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0086 CPD - 541325

Sika® MonoTop-620

Cementitious Smoothing Coat/Levelling Mortar & Pore Sealer

Product Description

Sika® MonoTop-620 is a one component cementitious polymer modified mortar.

Uses

- As a concrete pore sealer/levelling mortar/smoothing coat
- Repairing minor defects
- Thin layer render
- Repairing pores and honeycombed concrete
- For exterior and interior use

Characteristics / Advantages

- Pre-bagged for quality
- Just add water
- Compatible with Sika® FerroGard® corrosion inhibitor
- Compatible with SikaTop® and MonoTop mortars
- Overcoatable with Sikagard® coatings
- Sprayable by wet spray method

Product Data

Form

Appearance /Colours Grey powder

Packaging 25 kg bag

Storage

Storage Conditions/ Shelf-Life 6 months from date of production if stored properly in original unopened, sealed and undamaged packaging in dry and cool conditions.

Technical Data

Chemical Base Portland cement, polymer redispersable powder, selected aggregates and additives.

Density Mixed wet 2.0 kg/litre

Layer Thickness 1.5 mm min. / 5.0 mm max.



Mechanical / Physical Properties

Compressive Strength 28 days @ 20°C ~ 30-35 N/mm²

Flexural Tensile Strength 28 days @ 20°C ~ 4-6 N/mm²

Bond Strength ~ 1.5-2.5 N/mm² (substrate failure)

E-Modulus ~ 15.4 kN/mm²

System Information

System Structure	Sika® MonoTop-620 is part of the Sika® MonoTop Concrete Repair System
	Sika® MonoTop-610: Bonding primer and reinforcement coating
	Sika® MonoTop-612: Hand and wet spray applied repair mortar
	Sika® MonoTop-615: Hand and wet spray high build applied repair mortar
	Sika® MonoTop-620: Smoothing coat
	Sika® FerroGard®-903: Corrosion inhibitor

Application Details

Consumption This depends on the substrate roughness and thickness of layer applied.
As a guide, ~ 2.0 kg/m²/mm.

Substrate Quality The concrete shall be free from dust, loose material, surface contamination, existing renders, laitance coatings, oil and other materials which reduce bond or prevent suction or wetting of the smoothing coat.

Substrate Preparation Delaminated, weak, damaged and deteriorated concrete should be repaired using MonoTop repair mortars.
High spots can be removed by grinding.
Concrete surface should be cleaned and roughened using suitable abrasive blast cleaning techniques or high pressure waterblasting [up to 60 mPa (9000 psi)] techniques to achieve acceptable adhesion to the substrate. Adhesion test average must be >0.8 N/mm² with no single value below 0.5 N/mm² for crack bridging coatings and 1.0 N/mm² with no single value below 0.7 N/mm² for rigid coatings.

Application Conditions / Limitations

Substrate Temperature +5°C min. / +30°C max.

Air Temperature +5°C min. / +30°C max.

Application Instructions

Mixing	<p>Wet Spray Application : 2.5 to 3.5 L of water for 25kg powder</p> <p>Hand Application: ~ 4.0 to 4.5 L of water for 25 kg powder</p>
Mixing Time	<p>Sika® MonoTop-620 can be mixed with a slow speed (< 500 rpm) electric drill mixer.</p> <p>Pour the water in the correct proportion into a suitable mixing container. While stirring slowly, add the powder to the water. Mix thoroughly for at least 3 minutes to the required consistency.</p>
Application Method / Tools	<p>Smoothing Coat/Levelling Mortar</p> <p>The surface should be pre-wetted to a saturated surface dry condition before application.</p> <p>Pre-fill surface defects before applying as a smoothing coat.</p> <p>Apply Sika® MonoTop-620 by spatula or trowel to the required thickness and finish.</p> <p>Where Sika® MonoTop-620 is to be overcoated, finishing with a moist neoprene sponge or brush after initial set has taken place is recommended to provide a key for the coating.</p> <p>Do not overwork Sika® MonoTop-620 during or after applying. Should Sika® MonoTop-620 mortar be wetted during the initial cure period a white 'bloom' may be produced on the surface. This however, does not affect the long term properties of the mortar.</p> <p>Pore filler:</p> <p>Tightly trowel over surface and force into pores and other surface defects.</p> <p>Before overcoating remove excess material from surface while wet and wash down if necessary when dry to remove any dust deposits which may affect the bond of subsequent coatings.</p>
Cleaning of Tools	<p>Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.</p>
Potlife	<p>~ 35-45 minutes (at +23°C)</p>
Notes on Application / Limitations	<p>Avoid application in direct sun and/or strong wind and/or rain.</p> <p>Do not add water over recommended dosage.</p> <p>Apply only to sound, prepared substrates.</p> <p>Do not add additional water during the surface finishing as this will cause discoloration and cracking.</p> <p>Protect freshly applied material from freezing.</p>
Curing Details	
Curing Treatment	<p>It is essential to cure the repair mortar immediately after application for a minimum of 3 days to ensure full cement hydration and to minimise cracking. Use polythene sheeting taped down at the edges or other approved method.</p> <p>Curing compounds shall not be used if smoothing coat is to be overcoated.</p>
Value Base	<p>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.</p>
Local Restrictions	<p>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.</p>
Health and Safety Information	<p>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.</p>


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.

CE Labelling

The harmonised European standard EN 1504-3 "Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 3 Structural and non-structural repair" specifies the identification, performance (including durability) and safety of products and systems to be used to repair concrete surfaces (either building or civil engineering structures).

Non-structural repair fall under this specification – they need to be CE-labelled as per Annex ZA.2, table ZA.2 conformity 2+ and fulfil the requirements of the given mandate of the EU Construction Products Directive (89/106/CE).

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BS EN 1504 -2 Surface Protection Systems	
Water Vapour Permeability Capillary Absorption and Permeability to Water Adhesion Dangerous Substances	Class 1 $\leq 0.1 \text{ kg.m}^2.\text{h}^{0.5}$ $> 1.0 \text{ N/mm}^2$ Complies with 5.4



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Certificate No. EMS 4308



Certificate No. FM 12504