

PRODUCT DATA SHEET

Sika MonoTop®-620

R3 PORE SEALER AND LEVELLING MORTAR/SMOOTHING COAT

PRODUCT DESCRIPTION

Sika MonoTop®-620 is a polymer modified surfacing/finishing structural repair mortar, ready to mix, meeting the requirements of class R3 of the EN 1504-3.

USES

Sika MonoTop®-620 can be applied with or without a reinforcement matt, over concrete or mortar surfaces or over Sika Monotop® mortars. It is suitable for the following uses:

- Use as a concrete/ mortar pore sealer or levelling mortar
- Thin layer render over vertical or horizontal structural elements
- Repairing of minor defects (pores and honeycombed concrete)
- Restoration of edges and joints
- Suitable for restoration work (Principle 3, method 3.1 and 3.3 of EN 1504-9)

PRODUCT INFORMATION

Chemical Base	Portland cement, polymer redispersable powder, selected aggregates and additives.
Packaging	25 KG
Appearance / Colour	Grey powder
Shelf Life	6 months from date of production
Storage Conditions	store properly in original unopened, sealed and undamaged packaging in dry and cool conditions.
Density	Mixed wet 2.0 kg/litre
Compressive Strength	~30-35 N/mm ² (EN 12190)
Modulus of Elasticity in Compression	~15.4 kN/mm ² (EN 13412)
Tensile Strength	~4-6 N/mm ² (EN 196-1)
Tensile Adhesion Strength	~ 1.5-2.5 N/mm ² (EN 1542)

CHARACTERISTICS / ADVANTAGES

- Easy to apply
- Class R3 of EN 1504-3
- Adjustable consistency to improve workability
- Compatible with Sika® FerroGard® corrosion inhibitor
- Does not require a bonding primer even when manually applied
- Suitable for hand and machine application
- Low shrinkage behavior
- Non-corrosive
- A1 fire rating

APPROVALS / STANDARDS

Conforms to the requirements of BS EN 1504-3 R3 Classification

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-412N: 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

Mixing Ratio

- Wet Spray Application : 2.5 to 3.5 L of water for 25kg powder
- Hand Application: ~ 4.0 to 4.5 L of water for 25 kg powder

Consumption

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

Layer Thickness

1.5 mm min. / 5.0 mm max.

Ambient Air Temperature

+5°C min. / +30°C max.

Substrate Temperature

+5°C min. / +30°C max.

SUBSTRATE QUALITY / PRE-TREATMENT

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. 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.

MIXING

Sika® MonoTop-620 can be mixed with a slow speed (< 500 rpm) electric drill mixer.

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.

APPLICATION

Smoothing Coat/Levelling Mortar

The surface should be pre-wetted to a saturated surface dry condition before application. Pre-fill surface defects before applying as a smoothing coat.

Apply Sika MonoTop®-620 by spatula or trowel to the required thickness and finish. 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. 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.

Pore filler:

Tightly trowel over surface and force into pores and other surface defects. 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.

CURING TREATMENT

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. Curing compounds shall not be used if smoothing coat is to be overcoated.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.

LIMITATIONS

- Avoid application in direct sun and/or strong wind and/or rain.
- Do not add water over recommended dosage.
- Apply only to sound, prepared substrates.
- Do not add additional water during the surface finishing as this will cause discoloration and cracking.
- Protect freshly applied material from freezing.

VALUE BASE

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.

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.

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