

Sika® MonoTop®-723 N

R3 Cementitious Pore Sealer and Levelling Mortar

Product Description

Sika® MonoTop®-723 N is a polymer modified surfacing/finishing mortar, ready to mix, meeting the requirement of Class-R3 of EN 1504-3.

Uses

- Suitable for restoration work (Principle 3, method 3.1 and 3.3 of EN 1504-9)
- Suitable for preserving or restoring passivity (principle 7, method 7.1 and 7.2 of EN 1504-9)
- Use as a concrete pore sealer / levelling mortar
- Repairing of minor defects (pores and honeycombed concrete)
- Thin layer render

Characteristics / Advantages

- Excellent workability and finishing
- Suitable for hand or wet spray application
- Can be applied up to 5mm thick per application layer
- Class R3 of EN 1504-3
- Restoration work
- High sulphate resistant
- Low cracking sensitivity
- Low chloride permeability
- Compatible with Sikagard® overcoat systems

Tests

Approvals / Standards

LPM, Laboratory for Preparation and methodology (Beinwil am See, Switzerland) – Initial type testing report in accordance with EN 1503-3, Nr A-33,877-1E dated 9th April 2009.

Product Data

Form

Appearance / Colour Grey powder

Packaging 25 kg bag

Storage Conditions / Shelf-Life 12 months from date of production if stored properly in undamaged original sealed packaging, in dry cooled conditions.

Construction



Technical Data

Chemical Base	Portland cement, selected aggregates, additives and polymer modified
Density	Fresh mortar density: ~ 2.00 kg/l
Grading	D _{max} : 0.40 mm
Layer Thickness	1.0 mm min. / 5.0 mm max. per layer
Thermal Expansion Coefficient	10.5 x 10 ⁻⁶ m/m.°C (EN 1770)
Carbon Dioxide Diffusion Resistance	~ 2700 µCO ₂
Water Vapour Diffusion Resistance	~ 120 µH ₂ O
Mechanical / Physical Properties	20°C in lab conditions
Compressive Strength	~ 40 N/mm ² at 28 days (EN 196-1)
Flexural Strength	~ 8 - 9 N/mm ² at 28 days (EN 196-1)
Adhesive Bond	~ 2.0 N/mm ² (EN 1542)

System Information

System Structures	<p>Sika® MonoTop®-723 N is part of the Sika® Repair System complying with the relevant part of European Standard EN 1504 and comprising of:</p> <p><i>Bonding primer and reinforcement corrosion protection</i></p> <ul style="list-style-type: none">- Sika® MonoTop® -910 N: Normal use <p><i>Repair mortars:</i></p> <ul style="list-style-type: none">- Sika® MonoTop®-352 N: R3 light weight repair mortar- Sika® MonoTop®-412 N: R4 repair mortar- Sika® MonoTop® -723 N: R3 Pore sealer and levelling mortar- Sika® MonoTop®-438 R: Pourable/castable repair mortar
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Application Details

Consumption	<p>This depends on the substrate roughness and thickness of layer applied. As a guide, ~ 1.7 kg of powder per m² per mm thick. 1 bag yields approximately 14.7 litres of mortar</p>
Substrate Quality	<p><i>Concrete:</i> The concrete shall be free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials Reference should also be made to EN1504-10 for specific requirements</p>
Substrate Preparation	<p><i>Concrete:</i> Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means. The surface shall be thoroughly pre-wetted and not be allowed to dry before application of the concrete repair mortar. The surface shall achieve a dark matt appearance without glistening, and surface pores and pits shall not contain water.</p>

Application Conditions / Limitations

Substrate Temperature	+5°C min.; +35°C max.
Ambient Temperature	+5°C min.; +35°C max.

Application Instructions

Mixing Ratio	~ 4.5 litres of water for 25 kg powder
Mixing	<p>Sika® MonoTop®-723 N can be mixed with a low speed (< 500 rpm) electric drill mixer. In small quantity, Sika® MonoTop®-723 N can also be mixed by hand.</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>Sika® MonoTop®-723 N can be applied either manually using traditional techniques or mechanically using wet spray equipment.</p> <p>Apply by trowel and rub down with wooden/plastic float or damp sponge.</p>
Cleaning of Tools	<p>Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.</p>
Pot life	~ 40 minutes at +23°C
Waiting Time / Overcoating	<p>As guidance, Sika® MonoTop®-723 N can receive an overcoat 4 days after application (3 days curing + 1 day drying) with Sikagard® range of protective coatings. For other emulsion paints, refer to the relevant manufacturer's data sheet/documentation.</p>
Notes on Application / Limitations	<ul style="list-style-type: none">- Refer to the Method Statement for Concrete Repair using Sika® MonoTop® system for more information regarding substrate preparation or refer to the recommendations provided in EN 1504-10- Avoid application in direct sun and/or strong wind.- Do not add water over recommended dosage- Apply only to sound prepared substrate, min 25 N/mm² compressive strength- Do not add additional water during the surface finishing as this will cause discoloration and cracking- Protect freshly applied material from freezing

Curing Details

Curing Treatment	Protect the fresh mortar from early dehydration using the relevant curing method.
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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.
Health and Safety Information	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.
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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