Product Data Sheet
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Sikalastic®-152

Construction

CE

EN 1504-2:2004
EN 14891:2012/AC:2012

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Sikalastic®-152

Rapid curing cement mortar for flexible waterproofing and concrete protection

Product Description

Sikalastic®-152 is a two component fibre-reinforced mortar, with very low elastic modulus, based on cement modified with special alkali-resistant polymers, containing fine particle size selected aggregates and adequate additives for waterproofing and protection of concrete subgrades subject to flexural strain. Sikalastic®-152 is particularly advisable for application in humid environments or low temperature conditions.

Uses

- Waterproofing and protection of hydraulic structures such as: basins, tanks, swimming pools, concrete piping, bridges and canals
- Waterproofing and protection of outer walls to be buried into the ground
- Inside waterproofing of light counter pressure water, of walls and floors in basements
- Waterproofing of terraces and balconies with concrete or old tiles subgrades
- Waterproofing of weather exposed surfaces
- Protective, flexible, anti-carbonation coating of concrete surfaces also damaged from plastic and hydraulic shrinkage
- Flexible coating of concrete structures, also subjected to flexural strain
- Concrete surface protection, in accordance with the following EN 1504-9 Principles: 1: protection against ingress (coating); 2: moisture control (coating); 8: increase of resistivity (coating)

Characteristics / Advantages

- Flexible waterproofing and concrete protection with one product
- Reliable application also in very humid environment
- Applicable also on lightly humid subgrades
- Non sagging: easy application also on vertical walls
- Fast curing (also at low temperature)
- Crack bridging properties
- Excellent adhesion onto almost all subgrades, such as for instance concrete, cement mortars, stone, ceramics, bricks and wood
- High resistance against de-icing salts and carbon dioxide

Tests

Approvals / Standards	Fiber reinforced, two component, cement based mortar for waterproofing and concrete protection according to EN 1504-2, Principles 1,2 and 8 (Methods 1.3, 2.2, 8.2 of EN 1504-9) 2-component, cementitious mortar for waterproofing beneath bonded tiles (bonded with a C2 adhesive according to EN 12004) with improved crack bridging ability at low temperature (-20^{0}C) and resistant to contact with chlorinated water, complying to the performance of CMO2P class of EN 14891:2012. DoP 020701010020000043 1026, certificated by the Factory Production Control Body 0546 and from the notified lab 01599 and provided with the CE Mark.

Product Data

Appearance/Colour	grey
Packaging	Ready batched 33 kg packs: Comp. A (liquid): 8 kg Comp. B (powder): 25 kg

Storage

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

Technical Data

Chemical Base	Cement modified with polymers, selected aggregates, microsilica and fibres.
Density	~ 1.8 kg/l
Grading	D_{max}: 0.5 mm (EN 12192-1)

Requirements according to EN 1504-2

	Test Method	Results	Requirements
CO_2 permeability	EN 1062-6	S_D > 50	S_D ≥ 50 m
Water-vapour permeability	EN ISO 7783	S_D ~ 1.00 (Class I)	Class I S_D < 5 m (permeable) Class II 5m < S_D < 50m Class III S_D > 50m (not permeable)
Capillary absorption and liquid-water permeability	EN 1062-3	~ 0,005 kg m^{-2} h$^{-0.5}$	w < 0,1 kg m^{-2} h$^{-0.5}$
Freeze-thaw cycling (de-icing salt immersion)	EN 13687-1	~ 1.30 MPa	≥ 0.8 MPa
Bond strength	EN 1542	~ 1.50 MPa	≥ 0.8 MPa
Crack bridging	EN 1062-7	~ 1.25 MPa	Class A3 (+23^{0}C)
Dangerous substances (Chromium VI)	EN 196-10	< 0.0002%	< 0.0002%
Reaction to fire	EN 13501-1	A2	Euroclass

Requirements according to EN 14891:2012

	Test Method	Results	Requirements
Waterproofing (1.5 bar for 7 days)	A.7	No penetration	No penetration
Initial tensile adhesion strength	A.6.2	~ 1.0 MPa	≥ 0.5 MPa
Tensile adhesion strength after water	A.6.3	~ 0.7 MPa	≥ 0.5 MPa

contact			
Tensile adhesion strength after heat ageing	A.6.5	~ 1.8 MPa	≥ 0.5 MPa
Tensile adhesion strength after freeze-thaw cycles	A.6.6	~ 0.6 MPa	≥ 0.5 MPa
Tensile adhesion strength after contact with lime water	A.6.9	~ 0.7 MPa	≥ 0.5 MPa
Tensile adhesion strength after contact with chlorinated water	A.6.7	~ 0.9 MPa	≥ 0.5 MPa
Crack bridging ability standard condition (+23^{0}C)	A.8.2	≥ 0.75 MPa	≥ 0.75 MPa
Crack bridging ability at low temperatures (-20^{0}C)	A.8.3	≥ 0.75 MPa	≥ 0.75 MPa

Values obtained with a total consumption of 5.4 kg/m^2 in two layers

System Information

Application Details

Consumption / Dosage	As a guide: ~1.8 kg/m^2/mm
Substrate Quality	The substrate must be structurally sound and free from dust, dirt, loose material, surface contamination as oil or grease, cement laitance.
Substrate Preparation	The substrate should be prepared by suitable mechanical preparation techniques, such as high water pressure (400 bar) or grit blasting, water jetting to remove all previous coatings, wire-brushing. Sanding and grind existing ceramic tiles, e.t.c. in order to remove existing coatings and paints, grease, rust, demoulding agents, cement laitance and other products that might reduce adhesion. Dust must be removed using electric vacuum cleaner. If necessary, repair damaged, delaminated or weak concrete using Sika MonoTop®, SikaTop®, SikaRep® mortars. Smooth down all corners or sharp profile variations (floor and wall intersections, e.t.c.) shaping them in the form of concave coves, using Sika MonoTop® mortars, in order to improve the efficiency of the application. Dampen the substrate up to saturation. Avoid standing water or condensed water on the surface prior to the application (the surface must have a dark, matt appearance). Concrete joints, pipe penetrations and all kind of discontinuities in the construction must be sealed and waterproofed, using Sikadur® Combiflex® SG system or products from SikaSwell® series, or other suitable products.

Application Conditions / Limitations

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

Application Instructions

Mixing Ratio	Comp. A : Comp. B = 8 : 25
Mixing	Sikalastic®-152 can be mixed with a low speed (~ 500 r.p.m.) electric drill mixer. Shake carefully Comp. A before using. Then pour ~ ½ Comp. A into a suitable mixing container and add Comp. B slowly while mixing. When homogeneous, add the remaining amount of Comp. A, and mix thoroughly at least for 3-4 minutes, until the proper lump-free consistency is reached.

Do not add any additional water or other ingredients; each packaging unit must be entirely mixed, to avoid faulty particle size distribution of aggregates contained in the powder component.

Application Method / Tools

Application by trowel:
Apply Sikalastic®-152 by means of a trowel onto the substrate, exerting a good pressure.

Apply the first coat of Sikalastic®-152 using a notched (3x3 mm) trowel, with firm even pressure onto the substrate in order to achieve a regular, consistent thickness. As soon as the first layer has hardened, apply the second coat of Sikalastic®-152 by trowel, taking care to achieve a uniform and continuous layer, which totally covers the first one.

Maximum recommended total thickness for the product is at least 3 mm, minimum in 2 layers. Maximum recommended thickness per layer is 2 mm for both hand or spray application.

In highly stressed areas, a special alkali resistant glass fibre fabric (150-160 gr/m^2 and 0.47 mm thickness) shall be placed into the first fresh mortar layer. It shall be well trimmed and fully embedded into the mortar, avoiding the formation of voids in the coating.

Sikalastic®-152 cannot be smoothened using float or sponge trowel. It is possible to smooth the surface, as soon as the curing of the product is complete by light abrasion.

Application by brush:
Apply the first coat by brush, as soon as the first coat has hardened apply the second coat crosswise, by brush.

Corresponding to possible floor joints and other critical zones (for instance interface with vertical surfaces), the waterproofing layer can be reinforced with Sika® Seal Tape S. It must be applied on fresh first layer and then covered by second layer. In case of joint that are subject to high displacements, the use of Sikadur® Combiflex®-SG is mandatory.

Application of ceramic tiles on Sikalastic®-152:
Ceramic tiles and vitreous tile mosaics can be applied over Sikalastic®-152 using a suitable cement tile adhesive (e.g. cement based tile adhesive complying with C2 class as per EN 12004 - cement medium-elasticity adhesive). Tile joint shall be filled with the relevant SikaCeram® tile grout.

Potlife

~ 1 hour @ +20°C

Tool maintenance

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured material can only be mechanically removed.

Waiting Time / Overcoating

Immersion:

Sikalastic®-152 must be properly hardened before over coating or contact with water. The following waiting times can be used as a guide:

	+20°C	+10°C
Horizontal lining with tiles	~ 2 days	~ 7 days
Vertical lining with tiles	~ 2 days	~ 3 days
Coating by emulsion coat	~ 2 days	~ 3 days
Immersion in water	~ 2 days	~ 7 days

Waiting times may vary depending on humidity of environment and substrate.

Notes on Application/ Limitations

- Sikalastic®-152 cannot be smoothened using float or sponge trowel
- Protect from rain until at least 24 - 48 hours from application. Avoid application in, and protect freshly applied material from direct sunlight and/or strong winds
- Avoid direct contact with chlorinated swimming pool water using opportune tile line
- Sikalastic-152 is not a vapour barrier, and may transmit vapour tensions to over-applied coatings
- Avoid application in, and protect freshly applied material from: direct sunlight and/or strong wind
- The hardening process is slower when there is a high environmental humidity

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level, e.g. in closed or inadequately ventilated rooms and basements. Ventilation methods are recommended

- Don't use the product in full sun exposure or in the presence of strong wind, or when it may rain
- Sikalastic®-152 is not suitable for car traffic. Pedestrian walk is allowed, only if protected by tiles.

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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