



SL 416

DATA SHEET

Fast-setting, self-levelling smooth coat for interior floors, for thicknesses from 1 to 10 mm



Interior flooring



Sack



By hand



Metal trowel



By machine

Advantages

- Excellent levelling
- Easy application
- Excellent mechanical strength
- Fast covering application
- For both renovations and new constructions

Composition

SL 416 is a dry premix based on special hydraulic binders with rapid hydration and setting, with selected sands and special additives to improve workability and favour its self-levelling properties.

Supply

- Special bags with moisture protection from approx. 25kg

Use

SL 416 is used to level off, without imperfections, uneven interior surfaces or old ceramic floors, with thicknesses from 1 to 10 mm, when a short setting time is required to allow subsequent quick installation of the flooring. Ideal for laying wooden and stone coverings and ceramic tiles.

Due to its excellent self-levelling properties, SL 416 is ideal for levelling off substrates where raised floors and thin coverings will be subsequently be applied, such as resilient (linoleum, PVC, carpet, LVT, rubber, etc.) and resinous coverings.

Thanks to its excellent mechanical strength, SL 416 is suitable for the following uses:

Environments for residential use: (hotels, homes and related services);

Private and public offices;

Public environments (restaurants, healthcare facilities, schools, gyms, libraries, etc.);

Environments for commercial use (shops, warehouses, bookshops, shopping centres, etc.).

Comply with the requirements of the main application technical standards (UNI 11493-1, UNI 11371, UNI 11515, UNI 11714-1, UNI 10966 ecc.).



Substrate preparation

The application surface must be mechanically resistant, dimensionally stable, free of cracks, cured, dry, have no signs of rising damp, and without any oil, waxes, paints, adhesive residues or any other element that may compromise adhesion to the substrate.

Cementitious surfaces: Any cracks or recasting on horizontal surfaces will be structurally sealed using FASSA EPOXY 300 epoxy sealant. For cement screeds with insufficient surface resistance, evaluate the need to consolidate with PRO-MST, a specific product with high-penetration; in the most extreme situations, mechanical abrasion will be required before treatment with the primer. Highly-absorbent substrates must be treated beforehand with AG 15 primer diluted 1:8 with clean water and the smooth coat applied no more than 24 hours after applying the primer.

Anhydrite surfaces: anhydrite substrates must always be adequately prepared by mechanical abrasion, so as to roughen the substrate; subsequently, after careful cleaning, make sure that the residual moisture content is lower than the set limit (from 0.2% to 0.5% depending on the use and type of subsequent covering) and then apply PRIMER DG74 with a roller. Before applying the smooth coat, make sure that the substrate is completely primed and that the primer is completely dry.

Existing ceramic, marble floors, etc.: carefully map the area to make sure that the flooring is solidly fixed to the substrate. Any detached or loose parts must be removed beforehand, and the gaps filled with GAPER 3.30 or LEVEL 30. Carry out mechanical abrasion on the surface, followed by vacuuming and careful cleaning. Once the mortar has dried, to improve adhesion between the substrate and the self-levelling compounds, use PRIMERTEK 101 primer. Before applying the smooth coat, make sure that the substrate is completely primed and that the primer is completely dry.

Mixing

For application by machine, use a suitably-equipped plaster sprayer, such as the Fassa Bortolo I41. To correctly adjust the amount of water in the machine and thus obtain the right consistency of the mixture, carry out a fluidity test using specific Fassa equipment.

For application by hand, pour the contents of a sack into a bucket containing the amount of clean water specified in the technical data and mix by hand or using a mechanical stirrer at low speed for no longer than 3 minutes, until obtaining a fluid, uniform and smooth mixture. Wait 2 minutes before application and then stir the mix.

SL 416 is applied simply in one coat only in thicknesses from 1 to 10 mm, starting from the thicker areas, using a levelling rod, notched metal trowel or scraper. A spiked roller is recommended for best results.

The operations described above must be completed within the product's workability time.

Coverings can only be applied when drying is complete; the time required depends on the thickness, the type of substrate, the amount of water in the mixture and the temperature-humidity conditions.

For laying pre-polished ceramic or stone coverings, it is recommended to use one of our adhesives, AZ 59 FLEX, AT 99 MAXYFLEX, SPECIAL ONE or AD 8, mixed with FASSACOL LATEX S2. For Spain and Portugal FASSACOL PLUS, FASSAFLEX BASIC, FASSAFLEX, FASSAFLEX TOP. If quick setting products are required, RAPID MAXI S1 can be used.

For laying wooden coverings, it is recommended to use our ADYWOOD 2K two-component epoxy-polyurethane adhesive, or ADYWOOD MS, single-component silane adhesive for laying wooden floors.

For laying resilient coverings, it is recommended to use our ADYTEX RS one-component acrylic adhesive, or ADYTEX 2K high-performance epoxy-polyurethane adhesive.

The adhesive will be chosen according to the expected format and type of covering.

In any case, begin applying the covering only after verifying the suitability of the substrate according to the application regulations in force.



Warnings

- Product for professional use.
- Always consult the safety data sheet before use.
- The fresh product must be protected against frost and quick drying. Normally a temperature of +5°C is suggested as a minimum value for application and proper hardening of the product. Below this value, setting would be delayed excessively and below 0°C the fresh or partially hardened product could be broken up by frost.
- Do not use the product outdoors, on highly flexible substrates and in environments with continuous presence of water.
- Avoid applying SL 416 at temperatures above +30°C.
- Avoid air draughts and strong sunlight in the first few hours after application (in summer it is recommended to use dark fabrics to block sunlight on all openings). After curing for at least 24 hours, and in any case once setting is complete, ventilate the rooms to assist hardening and ensure optimum drying of SL 416.
- Protect SL 416 from humidity, accidental contact with water and condensate formation using suitable finishes.
- Avoid applications of SL 416 that are less than 1 mm thick.
- Do not apply SL 416 in thicknesses less than 3 mm if subject to heavy traffic or for laying parquetry.
- Application of the material in contact with pure aluminium is not recommended.
- Lay wooden, resilient and laminated floors only after having ascertained by carbide hygrometer that the moisture content is $\leq 2\%$ (in compliance with UNI 11371 and UNI 11515-1).
- For application of wooden, resilient and laminated floor coverings on screeds with underfloor heating, residual moisture must be $\leq 1.7\%$ (in compliance with UNI 11371 and UNI 11515-1).
- Lay stone coverings only after having ascertained by carbide hygrometer that the residual moisture content is $\leq 3\%$ or $\leq 2\%$ for moisture-sensitive materials (in compliance with UNI 11714-1).
- The residual humidity must be measured with a carbonate hygrometer when it is assumed that the screed humidity content is lower than 3%. For the measurement introduce a 50 gr sample in the vessel together with a calcium carbide vial. The reading must be made on the 50 gram scale, or using the appropriate conversion scales supplied with the instrument, 20 minutes after starting the test (in accordance with the requirements of standard UNI 10329). Electrical instruments may provide inaccurate values.
- For correct installation of ceramic flooring on any cement screed, the residual moisture content must be $\leq 3\%$ (in compliance with standard UNI 11493-1).
- For radiant floor screeds, it is always good practice to start the system before bonding any type of flooring, in order to make any cracks appear on the screed due to accumulation of stress resulting from thermal expansion; for SL 416, start the system after allowing a period of at least 7 days for curing. The covering must then be applied once the screed has cooled down.
- Any joints in the substrate must be visible in the layer of SL 416.

SL 416 it must be used in its original state without the addition of foreign materials.

Storage

Store in a dry place for no longer than 6 months. Once the product has expired, it must be disposed of in accordance with current legislation.

Quality

SL 416 is subjected to accurate and constant checks in our laboratories. The raw materials used are rigorously selected and controlled.



Technical Data	
Specific gravity of the powder	approx. 1,250 kg/m ³
Application thickness	1-10 mm
Granulometry	<0.6mm
Mixing water	23-25%
Yield	approx. 1.6 kg/m ² per mm in thickness
Density of the hardened product	approx. 2,000 kg/m ³
pH	alkaline
Workability time at +20°C	approx. 30 minutes
Specific heat (EN ISO 10456)	1 KJ/(kg·K) (tabulated value)
Water vapour diffusion resistance factor (EN ISO 10456)	100 dry conditions, 60 wet conditions (tabulated value)
Resistance to stresses parallel to the application surface (UNI 10827)	≥ 1.6 N/mm ²
Flexural strength after 28 days (EN 13892-2)*	≥ 7 N/mm ²
Compressive strength after 28 days (EN 13892-2)*	≥ 30 N/mm ²
Walkability at +20°C	approx. 3 hours
Reaction to fire (EN 13501-1)	A1fl
Compliant with standard EN 13813	CT-C30-F7
Recycled/recovered/by-product content	The product contains some recycled/recovered/by-product. The relevant declaration is available on request.
(*) The specimens for mechanical resistance tests are prepared under laboratory conditions, using a specific procedure in accordance with the reference standard (EN 13892-1)	

The above information refers to laboratory testing; it is possible that in practical applications on site these may differ considerably according to the conditions in which the material is applied. In any case the user must check that the product is suitable for the intended application, taking all responsibility for its use. Fassa reserves the right to make technical modifications without notice.

Technical specifications regarding the use of Fassa Bortolo products for structural or fire prevention applications will only be officially valid if provided by Fassa Bortolo's "Technical Service" and "Research, Development and Quality System". If necessary, contact Technical Service in your country of reference (IT: area.tecnica@fassabortolo.com, ES: asistencia.tecnica@fassabortolo.com, PT: assistencia.tecnica@fassabortolo.com, FR: bureau.technique@fassabortolo.fr, UK: technical.assistance@fassabortolo.com).

Please note that for the aforementioned products, the assessment is required by the appointed professional, in accordance with regulations in force.