



PRODUCT DATA SHEET

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MORTAR-BED TILING

SikaScreed®-40

POLYMER-MODIFIED CEMENTITIOUS MORTAR FOR SCREED APPLICATIONS

Description	Ready-to-use cementitious mortar developed with Sika's latest generation of polymers, specially formulated for screeds, localised resurfacing, slope creation/correction in interior/exterior applications. Allowing applications at thicknesses ranging from 10 to 150 mm (3/8 to 6 in), SikaScreed®-40 can be overlaid with various types of floor coverings (tile, parquet, carpet and resin-based coatings) or left uncoated for interior installations.
Where to use	SikaScreed®-40 is ideal for interior applications in new construction or renovation, such as: <ul style="list-style-type: none"> ▪ Floating or bonded screeds on new or old concrete slabs ▪ Creation of slope shapes (e.g. coves, gutters, Italian showers, etc.) ▪ As a slurry for adhesion under screed
Advantages	<ul style="list-style-type: none"> ▪ Easy to prepare ▪ Compatible with water or electric floor heating systems and many types of pre-existing substrates (old tiles, etc.) ▪ Allows tiles to be laid after a five (5) hour drying time ▪ Aesthetic rendering ▪ Excellent resistance to impact and cracking ▪ High compressive and flexural strength ▪ Contribution potential on LEED®v4 projects. Contact Sika Canada

Technical Data	
Packaging	22.7 kg (50 lb) bag
Colour and Form	Grey powder
Maximum Granulometry	0 to 4 mm
Yield	Approx. 2.3 kg/m ² /mm thickness Approx. 1 m ² (3/8 in) thick screed per 22.7 kg (50 lb) bag
Shelf Life	12 months in its original bag. Store in a dry place making sure the product is not exposed to rain, condensation or high humidity. For best results, condition product at temperatures between 18 and 29 °C (65 and 84 °F) before using.
Finishing Time after Mortar Placement	<ul style="list-style-type: none"> ▪ Up to 1 hour at 23 °C (73 °F) ▪ Approx. 45 minutes at 30 °C (86 °F)
Waiting Time/ Overlaying	Return to service*: <ul style="list-style-type: none"> ▪ Pedestrian Traffic: 12 hours ▪ Heavy Traffic: 24 hours Waiting time before overlay installation*: <ul style="list-style-type: none"> ▪ 5 hours for ceramic flooring ▪ 24 to 36 hours for moisture sensitive flooring ▪ 48 hours for wood or resinous flooring systems <p><i>* The above data is provided as an indication, for a temperature of 23 °C and relative humidity of 50 % when applied at 150 mm (6"). Moisture content was measured at ≤ 5 % by mass using a Tramex® CME/CMExpert type concrete moisture meter. Average moisture content will vary according to the actual drying conditions (temperature and relative humidity in particular) and the finish method. Prior to the installation of the floor covering, the residual moisture content of the screed should be measured with a calibrated moisture meter and it should be ensured that the moisture content of the screed conforms to the written requirements of the manufacturer of the floor covering to be installed.</i></p>
Setting Time	Temperature 23 °C (73 °F)
Initial	90 minutes
Final	150 minutes
Bond Strength	≥ 3 MPa on textured surface
Properties at 23 °C (73 °F) and 50 % H.R.	
Density	Density of fresh mortar: 2080 kg/m ³
Compressive Strength	≥ 20 MPa at 24 hours and 50 Mpa at 28 days (4 x 4 x 16 cm test cylinders, at 20 °C – 100 % HR) (values provided as indicative).
Rapid Chloride Permeability ASTM C1202	Low range (< 2000 Coulombs)
Freeze/Thaw Resistance ASTM C666/666M	Durability factor > 95
VOC Content	~ 0 g/L
Chemical Resistance	Contact Sika Canada for more information.
<i>Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.</i>	

HOW TO USE

Surface Preparation The concrete substrate will be sound, solid and stable. The surface must be clean and free of dust, oil, grease, paint, tar, wax, hardener, primer, sealer, laitance, loose particles, loosely adhered surface patches and any material or contaminant that may prevent or reduce bond performance.

Perform the preparation work with a jackhammer, high pressure water blasting or other appropriate mechanical means (e.g. shot blasting,) to obtain a rough surface profile (ICRI / CSP \geq 5). Sweep the surfaces and then use a Hoover with a brush to dislodge and vacuum up all dust and dirt. Saturate the substrate with clean potable water the day before and on the day of application so that the substrate is saturated surface dry (SSD) but free of standing water at the time of application. The cohesion of the substrate must be checked and must be greater than 1 MPa.

Mixing Pour 1.9 to 2.1 L (0.50 - 0.55 US gal.) of clean, fresh water per 22.7 kg (50 lb) bag of mortar into a clean, suitably sized container. Gradually add the powder and mix at low speed (300 rpm) for approximately three (3) minutes until a homogeneous mix is obtained.

Note: For thicker applications or for large surfaces, it may be more practical to use a low speed mortar mixer.

Application At the time of application, the surface must be saturated surface dry (SSS) and free of standing water. Apply a small quantity of SikaScreed[®]-40 mix and brush it vigorously over the surface of the substrate using a stiff nylon brush (brushed grout). Immediately pour more product into the freshly brushed grout. Another method is to mix one part SikaScreed[®]-40 with one part undiluted Sika[®] Latex R to achieve a slurry consistency. Apply the slurry with a brush or stiff-bristle broom to the surface to be covered. Ensure that the entire surface and edges are thoroughly coated. Pour additional SikaScreed[®]-40 mortar mix immediately over the brushed grout or slurry before it dries, then spread and level the mortar on the suitably prepared substrate to a minimum thickness of 10 mm ($\frac{3}{8}$ in) for slope shapes. Maximum application thickness is 150 mm (6 in).

Note: For large jobs, consider first making and installing guide strips to level the screed.

Curing For exterior applications, to achieve performance consistent with Technical Data, curing is required and must be provided as per ACI 308 recommendations for cement concrete. Use a recognized curing methods, such as wet burlap covered with white polyethylene film or approved water-based curing compound. Curing must begin immediately after placing and finishing. Alternatively, the use of Sika[®] Ultracure DOT[™] or NCF[™] curing blankets is strongly recommended. Curing must commence immediately after placing and finishing. Moist-curing must be maintained for the first 24 hours only. Protect freshly applied mortar from direct sunlight, wind, rain and frost.

Joints Provide and form control joints according to industry recommendations.

Clean Up Clean all tools and equipment after use with water. Once hardened, the product can only be removed manually or mechanically.

Limitations

- Minimum/maximum application thickness: 10 mm ($\frac{3}{8}$ in) / 150 mm (6 in)
- Screed thicknesses (loose or floating installation): \geq 40 mm (1 $\frac{5}{8}$ in) and only for light to moderate traffic in interior installations or rooms
- For optimum resistance to the freeze-thaw cycles, the mortar must be firmly compacted with a float
- Must be overcoated for exterior use
- Product temperature : Between 5 and 35 °C (40 and 95 °F)
- Substrate temperature: Between 5 and 35 °C (40 and 95 °F)
- Ambient air temperature: Between 5 and 35 °C (40 and 95 °F)
- Do not apply to substrates subject to rising humidity.
- Do not apply to frozen substrates, in the process of thawing or with risk of freezing within 24 hours
- As with any bagged cementitious products, storage of the product is particularly important. It is essential to protect it from rain, condensation or high humidity; otherwise, moisture penetration through the bag will cause lumps of material to form.

Health and Safety Information For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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