

Sika® Ceram-205

High performance, flexible cementitious tiles adhesive
for thin bed application

Construction

Product Description	Sika® Ceram-205 is a high performance flexible cementitious adhesive mortar, ready to use with the addition of water, for bonding ceramic tiles using thin bed techniques.
Uses	<p>Sika® Ceram-205 is used for bonding ceramic tiles with a continuous thin layer, up to 5 mm thick. As it has high adhesion and flexibility, it can be used in situations where traditional tile adhesives are not suitable due to the type of tile or the substrate etc.</p> <p><i>Sika® Ceram-205 is suitable to bond the following types of tile:</i></p> <ul style="list-style-type: none">n Ceramic, extruded and earthenware tilesn Low absorption ceramic tiles, which have poor adhesion to traditional tile adhesives <p><i>Sika® Ceram-205 can be used on substrates including:</i></p> <ul style="list-style-type: none">n Concrete and mortarn Bricksn Plaster (with primer)n Plasterboard, fibre cementn Anhydrite floor (with primer)n With underfloor heatingn Existing tiled substratesn In general, any type of substrate that is liable to shrinkage or thermal movementn In general, low absorption substrates when the use of a primer is not desired <p><i>Sika® Ceram-205 can be used on walls and floors, in external or internal situations.</i></p>
Characteristics / Advantages	<ul style="list-style-type: none">n CE Classified C2 ETn Thixotropic effect - Class Tn Extended open time - Class En High flexibility, so it is possible to use Sika® Ceram-205 on building façadesn Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, existing tiles etc)n Excellent adhesion to plaster/anhydrite screeds when primed with Sika® Ceram-10 W Primern Easy to use with excellent workability and thixotropic consistency



Tests

Approval / Standards	Compliance tests for CE Marking by Applus, Spain – 31.07.2007 Report no. 07/32301683 (Sika® Ceram 205 Grey) Report no. 07/32301682 (Sika® Ceram 205 White)
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Product Data

Form

Appearance / Colour	Grey / white powder
Packaging	25 kg bag

Storage

Storage Conditions / Shelf-Life	6 months from date of production if stored properly in original unopened, sealed and undamaged packaging in dry and cool conditions.
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Technical Data

Chemical Base	Cementitious mortar modified with polymers.	
Density	Fresh mortar density: ~ 1.6 kg/l (at +20°C)	(According to EN 12190)
Grading	D _{max} : 0.3 mm	(According to EN 12192-1)
Layer Thickness	1.5 mm min. / 5 mm max.	

Mechanical / Physical Properties

Tensile Adhesion Strength

(According to TS EN 1348:1997)

Initial	≥ 1.0 N/mm ²
After water immersion	≥ 1.0 N/mm ²
After heat ageing	≥ 1.0 N/mm ²
After freeze-thaw cycles	≥ 1.0 N/mm ²

(According to TS EN 1346:1997)

Open time	≥ 0.5 N/mm ² at 30 minutes
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Slip	≤ 0.5 mm
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(According to TS EN 1308:1997)

System Information

System Structure

In normal conditions, no primer is required. When the adhesion can be difficult the following primers are recommended:

Substrate	Primer
Very high absorption (Plaster, wood)	Sika® Ceram-10 W Primer
Low absorption	Sika® Ceram-20 W Primer
External use (with difficult adhesion)	Sika® Ceram-30

Note: Application detail and consumption of primers are given in their respective Product Data Sheets.

Application Details

Consumption	<p>This depends on the surface profile and roughness of the substrate, on the size of the tiles, and the technique of placing (simple placing or "back-buttering").</p> <p>As a guide, in kilo of powder per m²:</p> <table border="1"><tr><td>Mosaics and small tiles</td><td>~ 2 - 3 kg/m²</td></tr><tr><td>Normal size tiles (< 200 x 200)</td><td>~ 3 - 4 kg/m²</td></tr><tr><td>Large size tile, exterior floor</td><td>~ 4 - 7 kg/m²</td></tr></table>	Mosaics and small tiles	~ 2 - 3 kg/m ²	Normal size tiles (< 200 x 200)	~ 3 - 4 kg/m ²	Large size tile, exterior floor	~ 4 - 7 kg/m ²
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Substrate Quality	The substrate must be structurally sound, laitance free, clean and free from dirt, oil, grease or other contaminants and loose or friable particles.
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Substrate Preparation / Priming	<p>Weak concrete and/or surface laitance must be removed.</p> <p>Small blowholes or irregularity can be repaired using Sika[®] Ceram-205. However, large repairs to the substrate, filling of blowholes/voids must be carried out using appropriate products from the SikaTop[®], Sika[®] MonoTop or Sika[®] Rep range of materials or site produced mortar improved with Sika[®] Latex. Allow a waiting time of 24 to 48 hours before placing the tiles.</p> <p>All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.</p> <p>If the substrate is very porous if the temperature is high, and/or the relative humidity low, it is advisable to pre dampen the surface - do not leave any standing water.</p> <p>Variations in the level must be less than 5 mm, measured with a 2 metre straight edge. If necessary the substrate must be levelled prior to application. If the level is not good enough, the substrate must be levelled with a mortar made with Sika[®] Latex, Sika[®] MonoTop or Sika[®] Rep type of product.</p> <p>In refurbishment work, on existing ceramic tiles:</p> <ul style="list-style-type: none">- Check the ceramic tiles to ensure soundness- Remove any tiles that are not adhering properly and re-bond them- Grind off glazed tiles and remove dust- Wash other types of tiles with suitable detergent and rinse well with clean water. If after this washing operation, they remain greasy, repeat, then grind and remove dust etc.
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Application Conditions / Limitations

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

Application Instructions

Mixing	For both grey and white colours: ~ 7 l of water per 25 kg bag
Mixing Time	<p>Mix thoroughly with clean water for a minimum of 3 minutes.</p> <p>Leave material to stand in container until the majority of bubbles have dispersed (minimum 5 minutes). Remix the material for 15 seconds - the product is now ready for use.</p>
Mixing Tools	Sika [®] Ceram-205 must be mechanically mixed using a forced action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). A normal concrete (free fall) mixer is not suitable.

Application Method / Tools	<p>Sika® Ceram-205 is applied using a notched trowel onto the substrate. Select the trowel that will give the right coverage to the back of the tile.</p> <p>As a guide:</p> <ul style="list-style-type: none"> - For mosaics up to 5 x 5 cm, use a 3 mm notched trowel - For normal ceramic tiles (< 200 x 200), use a 6 mm notched trowel - For large tiles, use a 9 mm notched trowel - For tile larger than 300 x 300 or for stringent requirements (tiles to be polished, heavy loads, etc.), the 'back-buttering' technique for bedding must be used <p>Apply a uniform layer of Sika® Ceram-205 by trowel in small areas. Immediately, adjust the thickness using the notched trowel. Finally, place the ceramic tile, pressing it firmly onto the mortar.</p>						
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.						
Potlife	~ 4 hours (at +20°C)						
Rectification Time	Once the tiles are set into the mortar, they can be adjusted for ~ 20 minutes (at +20°C).						
Notes on Application / Limitations	<p>Cementitious substrates must be at least 28 days old.</p> <p>Do not exceed the recommended water dosage. Apply only to sound, prepared substrate. Do not exceed the maximum layer thickness.</p> <p>Plaster substrates must have a minimum thickness of 10 mm and a maximum moisture content of 5%.</p> <p>Protect freshly applied material from freezing and rain etc.</p> <p>It is not necessary to pre dampen the tiles.</p>						
Curing Details							
Applied Product ready for use	At +20°C						
	<table border="1"> <tr> <td>Before jointing works</td> <td>Min. 24 hours</td> </tr> <tr> <td>Before opening to light foot traffic</td> <td>Min. 24 hours</td> </tr> <tr> <td>Before opening to full traffic</td> <td>Min. 7 days</td> </tr> </table>	Before jointing works	Min. 24 hours	Before opening to light foot traffic	Min. 24 hours	Before opening to full traffic	Min. 7 days
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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.



Sika Yapı Kimyasalları A.Ş. Çağrı Merkezi +90 216 444 74 52
Deri Org. San. Böl. 2. Yol J-7 Telefon +90 216 581 06 00
Parsel, Aydınlı, Orhanlı Mevkii, Faks +90 216 581 06 99
34957 Tuzla, İstanbul, Türkiye bilgi@tr.sika.com www.sika.com.tr



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