

## TECHNICAL DATA SHEET

# KEMA STARLIGHT FLEX

Universal light flexible adhesive



C2TE

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<b>PRODUCT DESCRIPTION</b>	Ready-mix powdery flexible light adhesive mortar with long workability time for laying ceramic tiles and other types of tiles.
	Produced from cement, fine-graded quartz sand and special additives, for thickness from 1 to 15 mm.
<b>Field of use</b>	For gluing of floor and wall tiles of stone, gres porcelain, glass mosaic tiles as well as laying on concrete, plaster, screed, clinker, light-weight concrete and cellular concrete outdoors and indoors. Especially suitable for laying on existing ceramic tiles as well as on underfloor and wall heating.
<b>Product properties</b>	<p>Prior applying on gypsum surfaces is priming with prymer KEMAGRUND S requested.</p> <ul style="list-style-type: none"> <li>• 33 % higher yield</li> <li>• High flexibility</li> <li>• Reduced slip</li> <li>• Extended open time</li> <li>• Fast-setting adhesive</li> <li>• Frost-resistant</li> <li>• Easy to work with</li> <li>• High adhesion strenghts</li> </ul>

## PRODUCT DATA

### Basic information

<b>Appearance</b>	Grey powder
<b>Packing</b>	17,5 kg in bag / 980 kg (56x17,5 kg) on pallet
<b>Storage and expiration date</b>	12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.

### Technical data

<b>Type of product</b>	Cementitious polymer modified adhesive	
<b>Weight of fresh mortar</b>	1,19 kg/l (at +20°C)	EN 12190:2000
<b>Bulk density of powder</b>	0,86 kg/l (at +20°C)	
<b>Grain size</b>	D <sub>max</sub> : 0,315 mm	EN 12190-1:2002
<b>Layer thickness</b>	from 1 to 15 mm	
<b>Initial tensile adhesion strenght</b>	>= 1 N/mm <sup>2</sup>	EN 1348:2007
<b>Tensile adhesion strenght after water immersion</b>	>= 1 N/mm <sup>2</sup>	EN 1348:2007
<b>Tensile adhesion strenght after heat ageing</b>	>= 1 N/mm <sup>2</sup>	EN 1348:2007
<b>Tensile adhesion strenght after freeze-thaw cycles</b>	>= 1 N/mm <sup>2</sup>	EN 1348:2007
<b>Slip</b>	<= 0,5 mm	EN 1308:2007
<b>Open time after 20 min</b>	>= 0,5 N/mm <sup>2</sup>	EN 1346:2007
<b>Open time after 30 min</b>	>= 0,5 N/mm <sup>2</sup>	EN 1346:2007

Deformability-deflection	>= 2,5 mm and < 5 mm	EN 12002:2009
pH (at +20°C)	11-13,5	

## SYSTEM DATA

### System composition

In normal circumstances the grunding is not demanding, but if the surface demanding the grunding we recommended:

Substrate	Grunding coating/agent
High absorptivity (anhydride floor bases, lightweight concrete, foamed concrete, gypsum plasters)	Kemagrund S

Informations for use and consumption for grunding coatings are handing in validly technical sheet for KEMAGRUND S.

## INSTRUCTIONS FOR USE

### Consumption

1,2-2,4 kg/m<sup>2</sup> according of layer thickness

4 mm trowel:

Consumption on m<sup>2</sup>: 1,2 kg

Richer of one bag of adhesive: 14,6 m<sup>2</sup>

6 mm trowel:

Consumption on m<sup>2</sup>: 1,6 kg

Richer of one bag of adhesive: 10,9 m<sup>2</sup>

8 mm trowel:

Consumption on m<sup>2</sup>: 2,2 kg

Richer of one bag of adhesive: 8,0 m<sup>2</sup>

10 mm trowel:

Consumption on m<sup>2</sup>: 2,2 kg

Richer of one bag of adhesive 7,3 m<sup>2</sup>

### Base

Surface has to be equally absorptive, dry, homogenous, solid, supporting, not frozen (over +5°C), clean, free of dust, oil and similar impurities. Surface can be concrete (at least 3 months old), plaster, cement floor base, clinker, lightweight concrete or aerated concrete, cast asphalt or tiles. It is also suitable for terraces, facades and for underfloor and wall heating installations. If it is prepared in advance, surface can also be gypsum plaster, gypsum panels and calcium-sulphate floor base. It is not suitable for wood, metal and artificial materials.

### Base preparation

Plasters have to be dry, while cement floor bases have to be at least 28 days old. Anhydride floor bases (mechanically whetted), lightweight concrete, foamed concrete and gypsum plasters have to be impregnated with KEMAGRUND S or with the polymer dispersion KEMACRYL diluted with water in the ratio of 1:1. Surface has to be sufficiently flat to enable setting of ceramic in cca. 3 mm thick layer of adhesive. Bigger unevenness of the floor (0.5-3 cm) is levelled by application of levelling mass LINEA 820M (LINEA 20) to the connective coating KEMACRYL, diluted with water in the 1:1 ratio. When setting new ceramic tiles to the existing ones, the existing tiles have to be impeccably attached to the surface (must not sound hollow when knocked on). Before setting, they have to be washed with hot water and detergent to remove grease. Before setting of lining, floor bases with underfloor heating have to be heated and cooled in accordance with heating rules, while cast asphalt surface has to be sandblasted. Surface can change its shape only in a limited amount after lining has been applied. On substrate constructions, which are contracting and extending, lining has to be laid as late as possible. A guideline is that lining can be applied cca. 6 months after the construction on a concrete surface and wall with connected bricks. In substrate constructions, where expected effects are finalised, the aforementioned time limit can be shorter. On concrete substrates is possible to laying the coverings after one month if the surface is prior prepared with HIDROSTOP ELASTIK.

### Mix ratio

approx. 7,2 l of water per 17,5 kg of dry mixture

### Mix time

In dry mixture add the clean water and mix, so that homogenous mass of medium plastic consistency without clods is obtained (when preparing smaller quantities use 0,40 l of water per 1 kg of mixture). Leave it to rest for 5 minutes to intumesce and then stir it again thoroughly just before using it. If necessary, add some water. Water must not be added to the adhesive that is already in the binding phase.

### Mix tool

Choose a notched finishing trowel with teeth depth of 4 to 6 mm, which assures 2 to 3 mm thick adhesive layer.

### Installation

With a trowel apply a thin adhesive layer on the cleaned surface. With the notched finishing trowel apply and spread an additional adhesive layer on a fresh contact layer. Ceramic tiles have to be pressed and knocked into a fresh bed before the film occurs. Adhesive that gets into joints have to be scratched out before hardening. By doing that we make room for grouting compound and prevent stains from appearing on joints. If setting tiles on time demanding surfaces (outdoor, pools) and in other areas that require perfect adherence of ceramic tiles, the use of combined procedure is recommended. At the combined procedure the thin-layer adhesive is applied on both surfaces; on the surface to be lined as well as on the back side of the ceramics. Contact surface/ setting: -indoor application: at least 65 %  
 -outdoor application: at least 90 %

### Tool

Choose a notched finishing trowel with teeth depth of 4 to 6 mm, which assures 2 to 3 mm thick adhesive layer.

### Cleaning of tool

Clean tools immediately after the use before adhesive hardens. Hardened material on tools can only be removed mechanically.

### Usage time

approx. 2 hours

Open time max. 30 minuts

Coagulation  
Product appropriate for (+20°C):  
Grouting of wall surfaces after min. 8 hours  
Grouting of floor surfaces after min. 8 hours  
Foot traffic after min. 8 hours  
Full load after min. 7 days

## LIMITATIONS

Base temperature +5°C min./ +30°C max.

Air temperature +5°C min./ +30°C max.

Material temperature +5°C min./ +30°C max.

### Warnings

- Times specified in the technical sheet were measured at the temperature of 23°C and relative air humidity of 50%. Higher temperatures reduce, while lower temperatures prolong those times.
- Used only recommended amount of water and mix from undamaged packaging. Not to cross the recommended thickness of layer.
- Gypsum-cardboard panels must be with thickness at least 10 mm, with maximum moistness 5 %.
- For later waterproofing under lining we recommended Hidrostop Elastik.
- Protect freshly installed material from freezing, rain and other bad weather conditions. The material should not be used at (surface, air, material) temperatures lower than 5°C.
- Previous wetness of lining is not necessary. When setting natural stone, there is a danger of stone being coloured, so prior test setting is recommended.
- Since working conditions are not always the same, check with your finger if a membrane is formed on the surface of the applied adhesive.

**Recommendation:** Remains of the unhardened/unset material have to be removed in accordance with the legislation.

**Data source:** All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions.

**Local restrictions:** Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

## PROOFS

Norms/Standards In accordance with European standards EN 12004:2007

## SAFETY DATA

Irritating. Contains cement. Irritating to eyes, skin and respiratory tract. Contact with skin may cause hypersensitivity. In case of eye contact wash thoroughly with water at once and consult a doctor. In case of skin contact flood with a lot of water. Keep away from the reach of children. More data on storage, handling and use of mixture can be found in the safety sheet which contains safety, toxicological and ecological data. Warnings on the original packaging should also be considered.

## LEGAL BASE

Information and recommendations related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which Information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.