



# KÖSTER SL Premium

Technical Data Sheet SL 280 025

Issued: 2021-06-30

Classification report K-2300/763/16-MPA BS: Classification of reaction to fire according to DIN EN 13501-1:2010-01

## Fast hardening, self-levelling floor screed

CE	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 18 SL 280 EN 13813:2002 Cement screed for application in interiors
Reaction to Fire	A2 <sub>FI</sub> -S1
Compressive strength	C30
Bending tensile strength	F7
Release of corrosve substancec	SR
Water permeability	NPD
Wear resistance	AR 0,5
Tensile strength	B 2,0
Chemical resistance	NPD
Dangerous substances	NPD
Impact resistance	NPD

#### **Features**

KÖSTER SL Premium is a high quality, fast setting underlayment that hardens tension free and provides a smooth, level surface ready to receive subsequent flooring systems.

It hardens within hours to a smooth, strong, and multifunctional leveling layer. It may be applied onto a variety of substrates such as KÖSTER VAP I 2000 coatings, concrete, etc. KÖSTER SL Premium accepts all major floor coverings and is compatible with most adhesives. It is resistant to abrasion and wear. If the material is installed onto smooth, non-absorbent substrates such as KÖSTER VAP I 2000 coatings, the substrate must be primed with KÖSTER VAP I 06 Primer. KÖSTER SL Premium can be applied in layer thicknesses between 5 and 15 mm, can be feathered out to 2 mm, and installed in depressions up to 30 mm. It cures quickly and crack-free with up to 90% reduced shrinkage. KÖSTER SL Premium has a high surface hardness and a very good bond strength to the substrate. KÖSTER SL Premium is not a decorative top coat, but is suitable as a low-wear wearing layer in cellars or storage rooms.

## **Technical Data**

i common bata	
Bulk density (powder)	1.3 g/cm <sup>3</sup>
Compressive strength (28 days)	approx. 45 N/mm <sup>2</sup>
Bending tensile strength (28 days)	approx. 10 N/mm <sup>2</sup>
Tensile strength (depending on	up to 4 N/mm <sup>2</sup>
substrate)	
Application temperature	min. $+5$ °C to $+30$ °C
Ideal application temperature	+ 15 °C
Pot life	20 minutes (+ 20 °C)
Resistant to foot traffic	after 3 – 4 hours*
Can be tiled over	after 4 - 6 hours*
Trafficable (soft tires)	after 24 hours*
Application of Parquet, carpet	after 24 - 72 hours*
Application of synthetic flooring	after 24 – 72 hours*

Layer thickness (self-leveling) 5 - 15 mm in depressions up to 30 mm

Not self-leveling 2 mm to 5 mm

Can be feathered out to 2 mm

\*depending on temperature

## **Fields of Application**

KÖSTER SL Premium is designed for leveling uneven concrete surfaces as well as for surfaces covered with KÖSTER VAP I 2000 vapor barriers. It is intended for interior use.

#### Substrate

The substrate has to be sound and solid as well as free of bond inhibiting agents such as grease and oil. Remove all bond breaking substances such as laitance, loose particles, dust, formwork release oil, etc. The substrate can be prepared according to need by shotblasting, grinding, or brushing. Concrete and screed substrates are primed with KÖSTER SL Primer to reduce absorption before application. Non-absorbent tile substrates must be removed or ground down to an absorbent layer.

#### **Application**

The pull-off strength of substrates which are to be trafficked or that are to be treated with KÖSTER VAP I 2000 coatings must have a min. tensile strength of 1.5 N/mm². Do not acid etch substrates or clean the substrate with chemicals. Do not apply over adhesive residue. Do not bridge expansion joints with the KÖSTER SL Premium. Expansion joints must be installed in accordance with local guidelines. Mix each 25 kg bag of KÖSTER SL Premium with 5.2 I of potable water. The water is placed in a clean mixing vessel and the powder added while constantly mixing. Use an electrical paddle mixer and mix intensively for 3 minutes until a flowable, lump free consistency is reached.

Distribute the material in the desired layer thickness directly after mixing. Mix and distribute the material in a constant work flow to avoid visible work edges. The material is self leveling when working "fresh in fresh". While working larger areas use a KÖSTER Gauging Rake to distribute the material. Rolling the surface with a KÖSTER Spiked Roller immediately after distribution creates a very smooth surface through better de-airing. Install the KÖSTER SL Premium within 20 minutes. Do not delay successive pours by more than 10 minutes to avoid visible work edges.

The surface qualities of the underlayment depend on workmanship, layer thickness, and curing parameters so that variations from a sample surface may occur.

Moisture sensitive floor coverings and sealers may not be applied before the material has fully cured. Depending on the temperature it may take between 24 and 72 hours for the material to attain a residual moisture content of less than 3 M%.

## Installation with pump equipment

For mixing pumps, the water settings must be set so that the consistency is suitable for processing. The settings to be selected depend on the machine, the type of screw and the wear and tear of the screw jacket. Suitable machines are e.g. PFT G4 with post mixer,

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • info@koester.eu • www.koester.eu

KÖSTER SL Premium 1/2



stockbig No. 1 with secondary mixer, Putzknecht S 48 with secondary mixer, m-tec duomix, Euromair Compact 35 / ideal or comparable machine types from other manufacturers. Alternatively, the BMP 7 (from b&m, 5 m hose 1/2 ", 1st gear, 10% speed) can be used.

#### Plain concrete without KÖSTER VAP I 2000 vapor barrier:

Concrete substrates are prepared by shot blasting, milling and/or sandblasting in order to achieve an absorbent, open pored substrate. The cleaned concrete substrate is primed with KÖSTER SL Primer according to the Technical Guideline.

## Concrete coated with a KOSTER VAP I 2000 vapor barrier:

When applying onto smooth, non-absorptive substrates such as KÖSTER VAP I 2000 systems, KÖSTER SL Premium can be applied in layers up to 12 mm. It is necessary to prime such substrates with KÖSTER VAP I 06, consumption approximately 50 - 70 g/m². Depressions in the substrate should be filled below the VAP I 2000 layer. The coating can be opened to foot traffic after 24 hours and to traffic after 72 hours.

#### Aftertreatment

Curing can be aided by covering the hardened material with polyethylene sheets. This reduces surface shrinkage tension especially when the material has been applied in thick layers.

#### Consumption

Approx. 1.5 kg / m<sup>2</sup> / mm layer thickness

#### Cleaning

Clean tools immediately after use with water.

#### **Packaging**

SL 280 025 25 kg bag

#### Storage

Store the material in a dry environment at temperatures between +10 °C and +30 °C. In originally sealed packages, the material can be stored for a minimum of 6 months.

#### Safety

Wear protective gloves and goggles when processing the material. Observe all governmental, state, and local safety regulations while processing the material.

Eye contact – Flush immediately with water and consult physician. Do not rub eyes.

Skin contact - Wash off immediately with soap and water.

## **Related products**

 KÖSTER VAP I 2000
 Prod. code CT 230

 KÖSTER VAP I 2000 FS
 Prod. code CT 233

 KÖSTER Gauging rake
 Prod. code CT 915 001

 KÖSTER SL Primer
 Prod. code SL 189 005

 KÖSTER SL
 Prod. code SL 281 025

 KÖSTER SL Flex
 Prod. code SL 284 025

 KÖSTER SL Flow Test Board
 Prod. code SL 900 001

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • info@koester.eu • www.koester.eu

KÖSTER SL Premium 2/2