



## Tile Adhesives

### K511.lv

Technical Data Sheet

May 2021



## K2

### Flexible tile adhesive

#### Material

Flexible, water- and frost-resistant, thin-bed, high-quality cement-based tile adhesive.

#### Composition

A mixture of dolomite and natural sand with cement, enriched with polyvinyl acetate polymer and additives to improve the properties of the mixture.

Complies with

LVS EN 12004

Type

C2TE

#### Storage

12 months. Store in a dry, cool place on wooden pallets in the unopened original packaging. Seal opened bags tightly and use them first.

#### Quality assurance

In accordance with the requirements of LVS EN 12004, a product type test has been conducted at a notified laboratory, and continuous control of the manufacturing process is ensured.

The product is marked with the CE mark.

#### Features and benefits

- Flexible
- Temperature resistance from -20 °C to +80 °C
- High initial adhesion
- No shrinkage or tension
- Water-resistant
- Freeze-resistant
- Load-bearing  $\geq 1.0 \text{ N/mm}^2$
- With extended installation time
- With reduced slip  $< 0.5 \text{ mm}$
- Hydraulically setting
- For manual application
- For interior and exterior use

## Application

Thin-bed tile adhesive for walls and floors, also suitable for heated floors.

Suitable for:

- heavy-duty, stable surfaces,
- gypsum boards (installed on the wall in two layers).

Intended for:

- bonding water-absorbent and non-absorbent ceramic tiles and slabs,
- bonding degreased, non-transparent natural stone slabs. For interior and exterior use.

## Application

### Substrate

The substrate must be smooth, solid, frost-free, and free of dust, paint, and oil residues. If the surface to be tiled is plastered, the plaster must be applied in a single layer at least 10 mm thick and left unpolished.

### Maximum permissible substrate moisture content

Substrate	Max. moisture content
Cement floor covering	4%
Heated cement floor	2%
Gypsum anhydrite floor	0.5%

### Priming

Highly absorbent and absorbent substrates must be primed with Knauf Spezialhaftgrund (diluted 1:2 with water) or Knauf Haftemulsion (diluted 1:4 with water), or Knauf Tiefengrund.

Non-absorbent surfaces—such as ground (polished) concrete, terrazzo, etc.—should be primed with Knauf Spezialhaftgrund (undiluted) or Knauf Haftemulsion (diluted 1:2 with water). For surfaces expected to be exposed to moisture, apply Knauf Flächendicht or Knauf Flex-Dicht waterproofing.

Tile only after the primer has completely dried!

### Mixing

Pour 25 kg of K2 into 6.5–7.5 L of clean, cold water; mix by hand or with a slow-speed mixer until a homogeneous, lump-free mixture forms; let stand for 5 minutes to allow the mixture to swell, then mix again. Adjust the consistency by adding powder or water to the mixture.

### Application

First, apply the mixed adhesive with a trowel or putty knife to the entire prepared surface in the appropriate layer thickness. Then, holding the trowel at a 90° angle, comb through with a suitable notched trowel (notch sizes are specified in the Application Table). Place the tiles into the adhesive layer and press firmly with a gentle twisting motion. If a film forms (check with your finger!), the adhesive must be reapplied. The setting and curing time depends on the substrate and the tiles' absorbency, as well as the air temperature.

For exterior applications and on floors, the tile adhesive must ensure adhesion across the entire tile surface. In these cases, apply the tile adhesive to both the tile and the substrate.

Use only clean tools and containers!

### Grouting

Grouting may only be performed after the adhesive has cured—no sooner than 1 day for wall tiles, but 2 days for floor tiles.

### Tiling of Underfloor Heating Systems

The underfloor heating system must be put into operation before tiling begins. Before starting to tile, the underfloor heating system must be set to the maximum temperature setting for at least 24 hours. Before work begins, it must be turned off and allowed to cool down. Full heating may be turned on no sooner than 28 days after tiling.

### Temperature/Climate

The air and substrate temperature during installation and drying must be between +5 °C and +25 °C.

Protect freshly laid tile flooring from drafts, direct sunlight, and rain! Technical data for application are defined under conditions where the air and substrate temperature during curing is +23 °C and relative humidity is 50%.

### Drying

Drying time depends on the substrate's absorbency, air temperature, and humidity in the room.

### Cleaning

Wash tools with water immediately after use.

Instructions	Caution!
	The larger the tiles and the lower their water absorption, the slower the adhesive dries.
	Clean up any areas contaminated with adhesive immediately! Also follow the tile manufacturer's instructions and recommendations!
	Do not add other materials to Knauf K2, as this can significantly alter the product's properties.

### Other instructions

Soluble hexavalent chromium (Cr(VI)) ion content  $\leq 0.0002\%$ . When tiling less heavily loaded wall surfaces, an adhesive coverage of approximately 70% is acceptable.

For exterior work and heavily loaded surfaces, use the combined method (apply adhesive to both the substrate and the tiles); achieving up to 100% adhesive contact with the substrate. This method must also be used when installing tiles with very low (< 0.5%) water absorption.

Note that applying a thicker layer of adhesive, working in low-temperature or high-humidity conditions, increases the setting and grouting times for the tiles.

If the material gets into your eyes, rinse them with plenty of water and seek medical attention.

This technical data sheet specifies the scope of material use and recommended work procedures, but it cannot replace the contractor's expertise. In addition to these recommendations, work must be performed in accordance with construction requirements. The manufacturer guarantees the quality of the product, but this does not affect the manner and conditions of its use.

In case of doubt, a trial application should be performed.

This technical data sheet supersedes all previous editions of the technical data sheet.

### Work Safety and Waste Collection

Waste identification class: 170904 (see Material Safety Data Sheet).

**Technical data**

Designation	Unit	Value / Size
Type	in accordance with LVS EN 12004	C2TE
Layer thickness	mm	2-8
Processing time	h	3
Tile installation time*	min	30
Tile adjustment time*	min	10
Joint filling time for walls	h	24
Time required to fill floor joints	h	48
The surface can be walked on after	h	24
The surface is fully load-bearing after	day	7
Adhesion – to concrete	N/mm <sup>2</sup>	≥ 1.0
Slip	mm	< 0.5
Fire reaction class	in accordance with LVS EN 13501-1	A1
Processing temperature	°C	+5 to +25
Temperature resistance	°C	-20 to +80

\* Time depends on tile type and ambient temperature

**Consumption**

Tile size cm	Notch size of trowel mm	Coverage* kg/m <sup>2</sup>
up to 10	4	1.8
up to 15	6	2.5
up to 25	8	3.2
to 30	10	4.1
30 and over	12	4.9

\* Adhesive consumption is not determined by the size of the tiles, but rather by the thickness of the adhesive layer, which depends on the size of the notches on the trowel

**Delivery Schedule**

Name	Packaging	Item No.	EAN code
K2	25 kg	00260358	4750614005989
K2	12 kg	00288604	4750614006221

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