

K1 Flex

Technical Data Sheet 12/2023



K1 Flex

Cement based flexible ceramic, mosaic, marble and granite adhesive

Product Definition

Cement based flexible ceramic, mosaic, marble and granite adhesive with high strength, reduced sliding properties, extended open mixture life and high performance properties enhanced with additional features.

Storage

The bags should be stored horizontally on a flat surface such as a wooden pallet and kept dry so that they do not come into contact with water. Partly opened and / or damaged bags should not be used. Product shelf time is 12 months.

Standards comply with

TS EN 12004-1:2017 (C2TE)

Fields of Application

It is applied on concrete walls, plastered surfaces, over floor screed and gypsum board (with a suitable primer) at indoor and outdoor areas with intense pedestrian traffic. It shows high bonding strength at tiles with low water absorption.

Properties

- Flexible
- Normal hardening
- Reduced slip properties
- Extended open mixture life
- High bonding strength

Application

Application

- Clear all of the subsurfaces of foreign and chemical materials like dust, paint, form oil and repair the surface with Yapicement if there are any holes, cracks, gaps etc. on the surface (K1 Flex adhesive repairs up to 7 mm thicknesses). Before starting the application, prime the subsurfaces like aerated concrete with low adherence. You can apply plaster on the surface after the primer dries (min. 24 hours).
- Pour the plaster into the water in a clean container according to the appropriate mixture ratio. Mix at low speed with a mechanical mixer for 2-3 minutes until achieving a homogeneous mixture. Wait for 5-10 minutes for the prepared mortar to mature and mix for another 1-2 minutes before starting the application.
- Apply the mortar to the surface with toothed trowel suitable for the size of tile. Tile and ceramic adhesive bonding process should be completed within 30 minutes after the mortar is applied on the wall.
- The plaster on the subsurface should be applied as a single coat with at least 1 cm thickness.
- It's recommended to prepare mortar as much as required and consume the prepared mortar within 3 hours at most. Do not add water again to the mortar that starts to be hardened. No additional substances or materials (lime, sand, cement, plaster etc.) are allowed to add in to the prepared ready to use mortar. Plaster should not be applied on surfaces which are frozen or frost hazard is expected within 24 hours. Avoid sudden temperature changes.
- Pay attention to the leave expansion joints in wider application areas.
- Keep the bags on the pallets in a dry place as not to contact with water.

Application Tools

Trowel, steel trowel

Application Temperature

Do not apply below +5°C and above +30°C ambient, material and / or floor temperature. Fresh mortar should be protected against frost and quick drying.

Working Time (on the Applied Surface)

At joints* (walls): approx. 24 hours

At joints* (floors): approx. 48 hours

* If mortar is completely dry.

Safety Instructions

- Wash hands with plenty of water after handling.
- Use protective gloves / protective clothing / eye protection / face protection.
- In case of contact with eyes: Rinse your eyes cautiously with water for several minutes. If there is a lens remove it and continue to rinse.
- If eye irritation persists: Get medical advice / attention.

Technical Properties**

Description	Unit	Value
Color	-	Grey
Application thickness	mm	2-5
Application temperature	°C	5 - 30
Water mixing quantity (for 25 kg)	l	approx. 7,5 - 8
Consumption time**	hours	approx. 3
Working time at joints*** (walls)	hours	approx. 24
Working time at joints*** (floors)	hours	approx. 48
Full curing time	days	approx. 7
Open mixture life	minutes	30
Extended open time (30 min.) tensile adhesion strength	N/mm ²	≥ 0,5
High initial tensile adhesion strength	N/mm ²	≥ 1
High tensile adhesion strength after water immersion	N/mm ²	≥ 1
High tensile adhesion strength after heat ageing	N/mm ²	≥ 1
High tensile adhesion strength after freeze-thaw cycles	N/mm ²	≥ 1
Heat resistance	°C	btw -20 / +80

** Valid at 23° C temperature and 50% relative humidity.

*** In case the mixture is dried out.

Packaging

Definition	Weight (kg)	Packaging (pcs/pallet)	Material ID
K1 Flex Grey	25	54	140099
K1 Flex White	25	54	140100

System Performance Values

Please check for detailed information;

[Knauf Technical Website](#)

[Document Center](#)

Application

It is suggested to follow the technical details which given on Knauf system brochures for application.

▶ 444 YAPI - 9274

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