

# KP 550 ultra S1



**high performance  
GEL-type deformable  
cementitious adhesive**

C2 TE S1 type

- Excellent workability with GEL technology
- Total wetting of the backside of the tile - High adhesion strength
- Extended open time for tile application
- Strongly thixotropic: prevents vertical sliding of the tiles during application
- Type C2 TE S1 cementitious adhesive certified according to EN 12004-1



# KP 550 GEL ULTRA S1

## high performance GEL-type deformable cementitious adhesive

### DESCRIPTION

Deformable cementitious tile adhesive with GEL technology, for the installation of ceramic tiles and natural stones of any type and dimensions. GEL technology provides KP 550 GEL ULTRA S1 with excellent workability and performance characteristics.

It exhibits strong thixotropy in combination with very smooth texture, almost liquid, which withstands the weight of the tiles, allows total wetting of the backside of the tile, while it significantly reduces the effort of the installer during spreading of the adhesive.

Classified as type C2 TE S1 cementitious adhesive according to European standard EN 12004-1.

### APPLICATIONS

KP 550 GEL ULTRA S1 is suitable for the installation of any type of ceramic and porcelain tiles, thin and large-format tiles, glass-mosaic tiles, terrazzo slabs, marbles, natural stones and granite. It can be applied on any substrate like concrete, cement floor-screeds, existing floors covered with terrazzo, marble or tiles, renders, cement, gypsum or fiber boards, etc.

It is ideal for swimming pools, rooftops, terraces, balconies, moist areas (showers, baths, etc.) under-floor heating installations, high-traffic areas (shopping centers, hotels, etc.) and any other application with increased demands in flexibility, adhesion strength and resistance to moisture.

Suitable for indoor and outdoor applications.

### PROPERTIES / ADVANTAGES

- Deformable cementitious adhesive mortar type S1, for applications on substrates subject to movements and contraction-expansions.
- Excellent workability with GEL technology.
- Strongly thixotropic. - Zero vertical slip of the tiles during application.
- High initial and final adhesion strength.
- Extended open time for tile application.
- Resistance to moisture, frost and temperature changes.
- Suitable for indoor and outdoor applications.

### HARMONIZED STANDARDS / REGULATIONS

- EN 12004-1: Improved deformable cementitious tile adhesive with reduced vertical slip and extended open time, type C2 TE S1.
- Regulation (EE) No. 305/2011: CE marked product with Declaration of Performance (DoP): KP550GEL/CPR-7-13/081/04-2021.

### APPLICATION INSTRUCTIONS

- The substrate must be clean from dust, grease, subtle materials, etc., prior to application.
- In case of weak, very absorbent substrates, prime the surface with the micromolecular, deep-penetrating primer **ACRYLIC PRIMER**.
- Existing floors and non-absorbent surfaces should be first primed with the acrylic, quartz filled, adhesion promoting primer **FINO•CONTACT**.
- For the application of the adhesive on cement boards, gypsum boards and gypsum plaster the surface must be pre-treated with **ACRYLIC PRIMER** or **FINO•CONTACT**.
- The content of the bag (23kg) is gradually added into 6.6-7.1 kg of clean water under continuous stirring until a homogenous mixture without lumps is formed, having the desired workability. It is recommended to use a low speed electric mixer (~300rpm).
- The mixture should be left to mature for about 5 minutes and then be slightly stirred again.
- The adhesive is applied on the substrate with a notched trowel and then the tiles are pressed gently in the desired position.
- The tiles should be placed within 30 minutes from the application of the adhesive, depending on the environmental temperature and moisture, in order to avoid "film" formation on the surface of the adhesive.
- The adhesive remains workable for about 4-6 hours depending on the weather conditions. If the mixture starts to stiffen, it should be stirred again without adding extra water, in order to regain its workability.
- The surfaces can be grouted after 12 hours for walls and 24 hours for floors. Final strength is achieved after 14 days.

## CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

## RECOMMENDATIONS

- Temperature during application should be between +5°C and +35°C.

- Do not mix the product with dirty or salty water, cement, aggregates or admixtures.
- Don't use excess water for mixing as it will affect the performance of the product.
- Do not add water after the mix has started to set.
- Do not apply the product outdoors when rain or frost is imminent in the next 24 hours.
- For the application of the adhesive on cement boards, fiber boards, gypsum boards or gypsum plaster, the surface must be pre-treated with a suitable primer.

## TECHNICAL CHARACTERISTICS

### PRODUCT CHARACTERISTICS

Appearance	cementitious powder
Colour	white
Bulk density	1.45 ±0.05 kg/lt

### APPLICATION CHARACTERISTICS (+23°C / 50% R.H.)

Mixing ratio	29-31% b.w. (6.6-7.1 kg of water / 23kg bag)
pH	> 11
Density	1.60 ±0.05 kg/lt
Pot life	4-6 hours (22°C)
Application temperature	minimum: +5°C / maximum: +35°C
Application thickness	≤ 10 mm
Consumption	approximately 2-4 kg/m <sup>2</sup> depending on the substrate's roughness and the dimensions of the tiles
Open time (EN 12004-2, 8.1)	30 minutes (22°C)
Vertical slip (EN 12004-2, 8.2)	< 0.4 mm
Grouting on wall	after 10-12 hours
Grouting on floor	after 24 hours
Surfaces ready for light foot traffic	after 24 hours
Surfaces ready for use	after 14 days

### PERFORMANCE CHARACTERISTICS

Tensile adhesion strength (EN 12004-2, 8.3)	initial, after 28 days	> 2.35 N/mm <sup>2</sup>
	after thermal ageing (70°C)	> 1.75 N/mm <sup>2</sup>
	after water immersion	> 1.20 N/mm <sup>2</sup>
	after freeze-thaw cycles	> 1.20 N/mm <sup>2</sup>
Deformability (EN 12004-2, 8.6)	S1 - deformable (2.50 mm ≤ S < 5.00 mm)	
Resistance to alkalis	excellent	
In use temperature	from -30°C to +90°C	

**Note:** Measurements were conducted in a laboratory environment. The varying conditions present on-site (temperature, humidity, ventilation, substrate absorbency) may affect the material's properties.

## SAFETY PRECAUTIONS

- The product contains cement which has an alkaline reaction with water and is classified as irritant.
- Always wear appropriate personal protective equipment for eyes and skin (protective clothing, gloves and goggles).
- If skin contact occurs, rinse well with plenty of clean water.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

- Consult product's Safety Data Sheet for further instructions on safety handling.
- PRODUCT FOR PROFESSIONAL USE.**

## PACKAGING - STORAGE

Available in:

- 23kg paper bags.

**Storage:** 12 months from production date, if stored in original, sealed packaging, protected from direct sunlight and moisture.

## LEGAL NOTICE

The technical characteristics and recommendations for the use and application of the **FINOMIX** range of products are based on the knowledge and experience of the company. The above information shall be considered merely indicative and subject to confirmation after long-term practical application. For this reason, anyone who intends to use the product must

ensure that it is suitable for the envisaged application. Since the specific site conditions during the applications are beyond the control of our company, the user alone is fully responsible for any consequences deriving from the use of the product. **FINOBETON S.A. (FINOMIX)** has the right to modify the properties of its products without prior notice. This release voids any previous publications issued for this technical specifications sheet.

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