



KLE150-W

GLASS MOSAIC ADHESIVE FOR INTERIOR & EXTERIORS

Klebend's KLE150-W is a single component white adhesive. That is functional for high resistance laying of ceramic tiles, glass mosaics and homogeneous tiles. The tacking polymers deformability (superior spreadability) and fine finishing of the material affixed.

Green Building Rating



Areas of Application

- Facades, heat-radiant slabs, flooring and walls, indoor/outdoor use, in civil, industrial and commercial applications and for street furniture, in areas which are humid and subject to thermal shock and freezing.
- Floors and walls, for internal and external use
- Laying of ceramic and homogeneous tiles of all types, glass mosaic, stable marble and natural stone on flooring and walls, on cement-based deformable and non-absorbent substrates and heated subfloors.
- Suitable for homogeneous tiles, ceramics, large formats, low thickness slabs and stable natural stone
- Thicknesses up to 15 mm.

Features & Benefits :

- Guaranteeing the long life of floors and coverings subject to large temperature variations
- Mineral adhesive for high-performance, high-deformation laying or overlaying with no vertical slip
- KLE150-W develops high transversal deformation along with high resistance to
- the stress of water and freeze/thaw cycles
- Single-component with very low volatile organic compound emissions

Preparation of substrates

1. In general, cement-based substrates must be free from dust, oil and grease, dry and free from any rising damp, with no loose, flaky or imperfectly anchored parts such as residual traces of cement, lime and paint, which must be totally removed.
2. The substrate must be stable and without cracks, must have already completed curing hygrometric shrinkage and must present suitable mechanical resistance levels. Undulated areas must be corrected with suitable smoothing and finishing products.

Non-absorbent substrates :

1. Smooth, non-absorbent substrates which are compact and wellanchored must be prepared by cleaning with products suitable for the type of dirt present.
2. If chemical cleaning cannot be carried out, proceed with mechanical abrasion by means of sand-blasting or scarification of the superficial layer and, if necessary, correct the surface with suitable levelling products.



High-absorption substrates :

On screeds and plasters which are highly absorbent and have dusty flaky surfaces it is advisable to Apply one or more coats of Primer a professional, concentrated water-base, surface insulation product, in accordance with the instructions, to reduce water absorption and to improve spreadability of the adhesive.

Preparation of Adhesive Paste

- Prepare KLEI 50-W in a clean container, first of all pouring in a quantity of water equal to approximately . of that which will be required.
- Gradually add KLEI 50-W to the water in the container; mixing the paste from the bottom upwards with a low-rev ($\approx 400/\text{min.}$) helicoidal agitator.
- Then add more water until the desired consistency is obtained. The mixture must be homogeneous and without any lumps. For best results, and to mix larger quantities of adhesive, a stirring device with vertical blades and slow rotation is recommended.
- Specific polymers with high-dispersion properties ensure that KLEI 50-W is immediately ready for use. The amount of water to be added, indicated on the packaging, is an approximate value and will vary between the KLEI 50-W. It is possible to obtain mixtures with a more or less thixotropic consistency, depending on the type of application.

Adding extra water does not improve the workability of the product, and may cause shrinkage in the plastic phase of drying and result in less effective final performance with a reduction in compressive strength and adhesion to the substrate.

Application

1. KLEI 50-W should be applied with a suitable toothed spreader, to be chosen according to the size and characteristics of the rear surface of the tiles. It is best to use the smooth part of the trowel to spread a fine initial layer, pressing down hard so as to obtain maximum adhesion to the substrate and to regulate water absorption, after which the thickness can be adjusted as required by tilting the spreader at an angle.
2. Spread the adhesive over a surface area which will allow for laying of the covering materials within the indicated open time, and check for suitability of the adhesive at regular intervals. The open time may vary considerably even during the application, depending on various factors such as exposure to sunlight, air currents, absorbency of the substrate, temperature and relative humidity of the atmosphere.
3. Press down each tile to allow for complete, uniform contact with the adhesive. In the case of laying in environments subject to heavy traffic, in outdoor locations, on underfloor heating systems or with materials to be smoothed on-site and with formats $> 900 \text{ cm}^2$, the double-spread technique must be used, which ensures laying procedures on fresh adhesive, 100% coverage of the rear of the tiles and maximum adhesion.
4. In general, ceramic tiles do not require preliminary treatment, however these materials should be checked to ensure they are free from traces of residual dust or materials not properly anchored to the surface

Special applications :

- Partial replacement of mixing water with SBR professional elastomeric latex enhances the adhesive's capacity for transversal deformation. The real necessity for deformability of the laying system must be verified, as use of an excessively deformable adhesive together with highly-rigid substrates and laying materials may cause breakage and early unexpected yielding of the covering materials when placed under heavy and concentrated strain or loads.

Elastic joints :

- Provide desolidarisation joints and elastic fractionizing joints for areas of $20/25 \text{ m}^2$ in indoor applications, $10/15 \text{ m}^2$ in outdoor applications and for every 8 metres length in the case of long, narrow applications. Structural and string-course joints have to be marked on the external facade.

Elastic joints :

- Do not use on gypsum-base plasters and anhydrite screeds without the use of Primer a professional concentrated, water-base, surface insulation product; on plastic or resilient materials, metals and wood; on substrates subject to continuous moisture rising
- Do not use the adhesive to correct substrate irregularities greater than 10mm
- Lay and press tiles onto fresh adhesive, making sure it has not formed a surface film the temperature, ventilation and absorption of the substrate and covering materials may vary the adhesive workability and setting times
- Protect against direct rain and freezing for at least 24 hours
- Use a toothed spreader suitable for the format of the tiles
- Use the double-spread technique for all outdoor laying



■ Technical Information

Colour	white	
Mixing ration	5.6 to 6.4 ltrs/ bag 20 kg KLEI 50-W	
Pot life	≥ 4 hr	
Open time	≥ 30 min.	
Adjustability	≥ 45 min	
Bed thickness	1.5mm to 10mm	
Grouting	≈ 8 hr on wall / ≈ 24 hr on floor	
Final characteristics		
Shear adhesion after 28 days.	≥ 1 mpa	ANSI A-118.1
Tensile adhesion on concrete after 28 days.	≥ 1 mpa EN 1348	EN 1348
Durability test :		
Adhesion after heat ageing.	≥ 1 mpa	En 1348
Adhesion after water immersion.	≥ 1 mpa	En 1348
Adhesion after freeze thaw cycles.	≥ 1 mpa	En 1348
Working temperature	from - 30°c to + 80°c	

■ Coverage :

This shall depend on the nature and flatness of the surface and the method of application, but at 1.5 mm thickness it is approximately 100 sq.ft for 20kgs bag with a "v" notch (3mm x 3mm) trowel when using a solid-bed trowel. For good coverage, it is vitally important that all surfaces should be clean, smooth, plumb, level and free from defects and undulations.

■ Packing :

20 Kg Bag.

■ Shelf Life & Storage :

12 months with original packing in dry storage place

DISCLAIMER The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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Epoxy | Adhesive | Water Proofing