

KiilTO
PRO

KERAFIBER | INTERIOR

Kiilto

KERAFIBER

WATERPROOFING KIT

**PRODUCT AND APPLICATION
GUIDE**



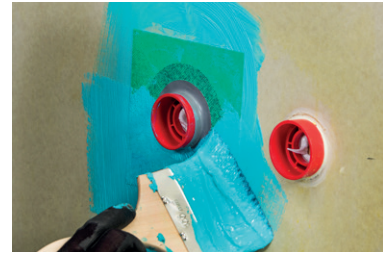
WALLS



1. Prime dry and dustless walls with Kiilto Keraprimer or Kiilto PrimeOne. Dilute Kiilto Keraprimer with water 1:1. Allow to dry for at least 30–60 minutes before waterproofing.



2. Always stir Kiilto Kerafiber before use. Reinforce corners, joints and junctions of different background materials with Kiilto Nurkkavahvikenauha tape. Install the tape onto wet Kerafiber and brush Kerafiber over the tape to ensure wetting.



3. Pipe inlets can be waterproofed with pre-fabricated reinforcement sheets or pieces can be cut from Kiilto Nurkkavahvikenauha tape. Install reinforcement sheets onto wet Kerafiber and brush Kerafiber over the tape to ensure wetting. Pipe inlets can also be sealed with Kiilto XPU Strong and flexible fix before waterproofing.



4. Roll Kerafiber over the entire wall and allow to dry for at least 2 h/colour change.



5. Roll a second coat of Kerafiber and allow to dry for 6–12 h/colour change before tiling. Check the thickness of the Kerafiber layer. Add Kerafiber on top of thin and/or porous spots and allow to dry properly. The total consumption of Kerafiber should be at least 0.6 l/m² and the layer thickness 0.4 mm.



6. Fix wall tiles with Kiilto Superfix DF, Kiilto Saneerauslaasti or Kiilto Kerapid DF Pikasaneerauslaasti.

FLOORS



1. Prime dry and dustless floor with Kiilto Keraprimer or Kiilto PrimerOne. Allow to dry for at least 30–60 minutes before waterproofing.



2. Reinforce corners, joints and junctions of different background materials with Kiilto Nurkkavahvikenauha tape. Install the tape onto wet Kerafiber and brush Kerafiber over the tape to ensure wetting. For inside and outside corners, you can use pre-shaped corner reinforcements.



3a. The floor drain can be waterproofed with two Kiilto Lattiakaivovahvike floor drain patches. Place one floor drain patch on the floor and brush Kerafiber over it. Place the other patch over the first patch crosswise and brush Kerafiber over it.



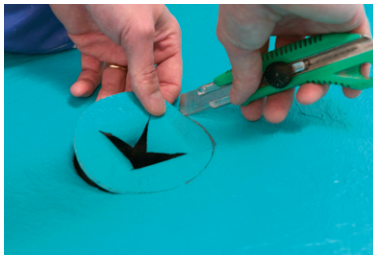
3b. Apply waterproofing membrane around the floor drain (approx. 40 x 40 cm area), and turn the prepared floor drain patch over the drain. When using a separate sealing flange, contact our technical support or consult your drain supplier for instructions.



4. Roll Kerafiber over the entire floor area and allow to dry for at least 2 h/ color change.



5. Roll a second coat of Kerafiber and allow to dry for 6–12 h/colour change before tiling. Check the thickness of the Kerafiber layer. Add Kerafiber on top of thin and/or porous spots and allow to dry properly. The total consumption of Kerafiber should be at least 0.8 l/m² and the layer thickness 0.5 mm.



6. After the waterproofing membrane has dried, cut a round hole for the floor drain: ensure that the diameter of the hole is at least 40 mm smaller than the diameter of the floor drain, so that the rim of the Kerafiber layer stretches over the seal in the drain (follow the drain manufacturer's instructions). The thickness of the Kerafiber layer around the floor drain should be a minimum of 1.2 mm.



7. Press a suitable tension ring into position. Cut off any excess Kerafiber under the ring.



8. You can also seal the floor drain with a self-adherent Kiilto Kaivolaippa reinforcement. Place Kiilto Kaivolaippa on a dry, primed surface and press carefully into position. Cut a hole into it according to the drain manufacturer's instructions and press the tension ring into position.



9. Kiilto Kaivolaippa has reinforcements on two sides, apply Kiilto Kerafiber to them. The other two sides must be reinforced with reinforcement tape. Ensure that the tape overlaps with the Kaivolaippa by at least 30 mm.



10. Apply Kiilto Kerafiber to the entire floor area up to the tension ring.



11. Seal the junction between the tension ring and the floor drain with Kiilto Masa Fix and sealant. Kiilto Kaivolaippa has been tested and approved in terms of its compatibility with the most common floor drain types.



12. Fix the floor tiles with Kiilto Superfix DF, Kiilto Saneerauslaasti or Kiilto Kerafix DF Pikasaneerauslaasti.



13. Apply Kiilto Lattiasaumalaasti or Kiilto Saumalaasti with a rubber trowel and press it into the joints. Wait for 15-30 minutes and wash away excess grout with a sponge. Use a well-wrung sponge, since too much water may discolour the joints. Wall joints' profile can be finished by using a thick electric wire.



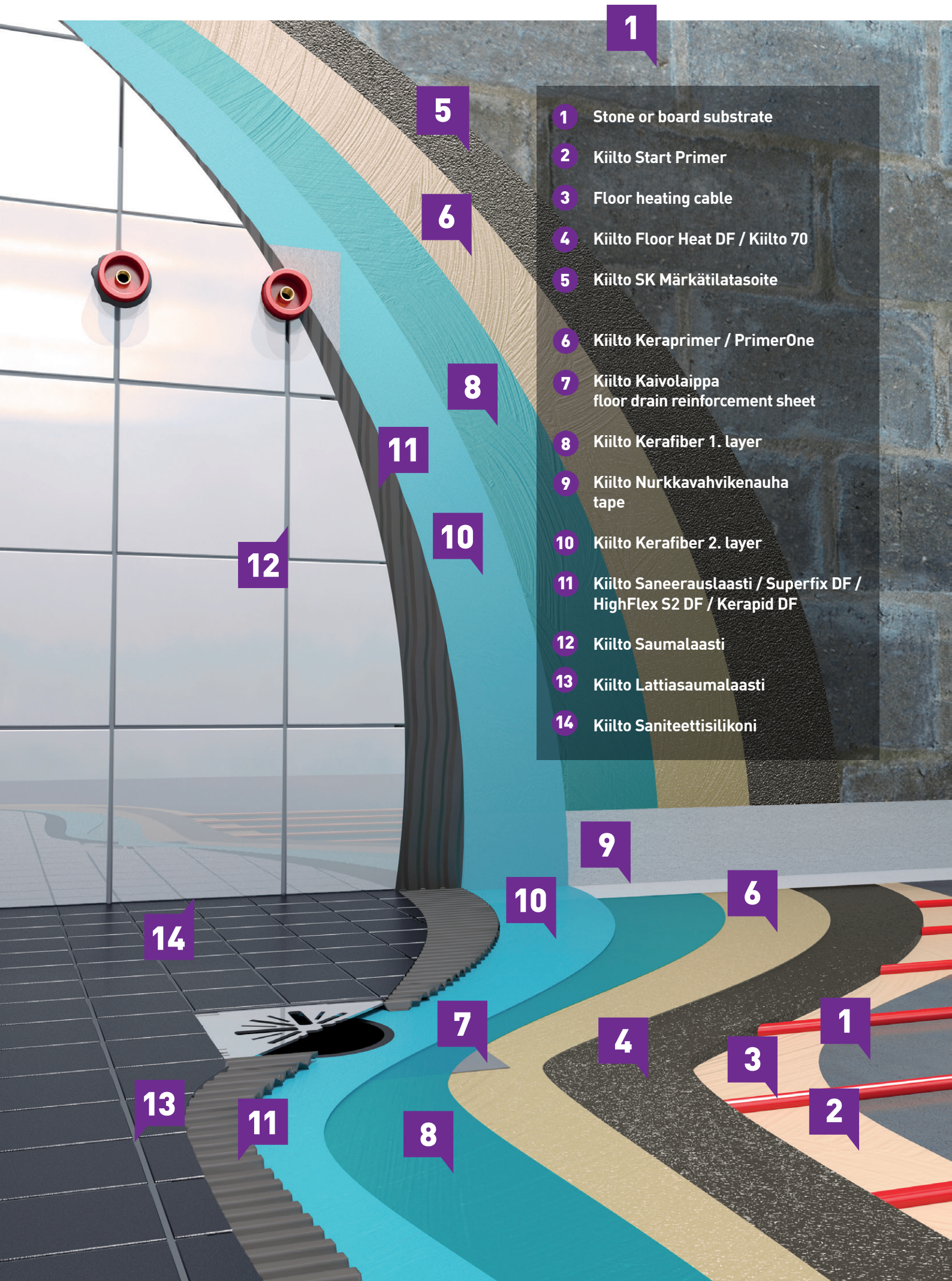
14. Wipe away any excess tile grout from the corners, and seal the corners and pipeline inlets with Kiilto Saniteet-tisilikoni. Wait until the next day before using your new bathroom. If you have an underfloor heating, wait for a week before gradually bringing the system up to its operating temperature.

Kiilto KERA-FIBER

- one-component
- reinforced with micro fibres
- easy to use



THE SYSTEM'S CONSTRUCTION



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1 Stone or board substrate

2 Kiilto Start Primer

3 Floor heating cable

4 Kiilto Floor Heat DF / Kiilto 70

5 Kiilto SK Märkätilatasoite

6 Kiilto Keraprimer / PrimerOne

7 Kiilto Kaivolaippa
floor drain reinforcement sheet

8 Kiilto Kerafiber 1. layer

9 Kiilto Nurkkavahvikenauha
tape

10 Kiilto Kerafiber 2. layer

11 Kiilto Saneerauslaasti / Superfix DF /
HighFlex S2 DF / Kerapid DF

12 Kiilto Saumalaasti

13 Kiilto Lattiasaumalaasti

14 Kiilto Saniteettisilikoni

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Kiilto Kerafiber

-SYSTEM APPLICATION GUIDE

AREA OF APPLICATION

Waterproofing system for walls and floors in wet areas when using ceramic tiles. Not recommended for areas constantly under water, such as swimming pools. The thermal resistance of a dry Kerafiber coat is $< +70\text{ }^{\circ}\text{C}$ (important when installing wood heated stoves). Compatible with other Kiilto waterproofing systems, see separate instructions.

SUBSTRATE

Suitable substrates are a strong aggregate base or construction board that has been tested and approved for wet area applications. The surface must correspond to a wood floated surface that is free of old coatings, cement skin, dust and other impurities that might reduce adhesion. Check that the humidity of the concrete substrate is max. 90% RH. Ground supported floors must have a barrier layer to prevent rising damp. Uneven floors must be sanded and/or smoothed with a cement based Kiilto smoothing compound. When installing underfloor heating in renovated floors, we recommend Kiilto Floor Heat DF over cables and for building falls. Underfloor heating must be installed under the waterproofing membrane according to the manufacturer's instructions. Prepare the surface prior to levelling, according to separate instructions. Always ensure that the construction is suitable for waterproofing and tiling.

REINFORCING

Corners, pipe inlets and junctions and seams of different bases and background wall materials must be reinforced and sealed with Kiilto Nurkkavahvikenauha (tape width in corners: 10 cm or 20 cm, in joints: 10 cm). In wall-floor junctions, the tape must be lifted min. 5 cm onto the wall. For internal and external corners and pipe inlets, you can use pre-fabricated reinforcing pieces. Pipe inlets can also be sealed with Kiilto XPU strong and flexible fix. The floor drain must be reinforced with two Kiilto Lattiakaivovahvike (30 cm x 30 cm) or self-adherent Kiilto Kaivolaippa. Two Lattiakaivovahvike sheets should be put into place crossed over one another. The floor drain must be equipped with a tension ring recommended by the floor drain manufacturer. The junction between the ring and the floor drain must be sealed with Kiilto Masa fix and sealant. Reinforcements must be installed onto wet Kerafiber with a roller, brush or flat plastic applicator by rubbing. Kerafiber must be applied over the reinforcements to ensure thorough wetting. Ensure that the reinforcements overlap each other by at least 30 mm. Self-adherent Kiilto Kaivolaippa should always be placed on a primed surface. Kiilto Kerafiber has been

tested and approved as compatible with the most common floor drains on the market. If you have any doubts about compatibility, contact our technical support or the floor drain supplier.

CONSUMPTION

Walls need two layers of Kerafiber at a minimum: approx. 0.6 l/m^2 = the thickness of the dry Kerafiber coat 0.4 mm. Floors need two layers of Kerafiber at a minimum: approx. 0.8 l/m^2 = the thickness of the dry Kerafiber coat 0.5 mm.

WORKING CONDITIONS

During waterproofing work, the air and construction temperature must be $+15\text{--}25\text{ }^{\circ}\text{C}$. Conditions should be stable (no humidity and temperature variations) during the work to avoid dimension alterations in the materials. Underfloor heating should be turned off 2 days before the work commences and brought up to its operating temperature gradually around one week after grouting. Effective ventilation can be used to speed up the drying of Kiilto Kerafiber, but do not use extra heaters.

TOOLS

A roller, sprayer, brush, flat plastic trowel and trimming knife. Tools and fresh stains can be washed off with water, dry stains must be removed by mechanical means.

KIILTO Kerafiber PRIMING INSTRUCTIONS

Substrate	Primer
Concrete or levelling compound	Kiilto PrimerOne undiluted Kiilto Keraprimer diluted with water 1:1
Gypsum board	Kiilto PrimerOne undiluted Kiilto Keraprimer undiluted
Other board substrates: Absorbent	Kiilto PrimerOne undiluted Kiilto Keraprimer diluted with water 1:1
Non-absorbent	Kiilto PrimerOne undiluted Kiilto Keraprimer undiluted
Coarse concrete or brick	Levelling with cement based Kiilto levelling compounds

- Remove any low strength concrete from the surface.
- Remove any cement skin and other impurities that might impair adhesion.
- The surface must be clean and dustless before primer is applied.

For detailed instructions on preparing renovation substrates, please contact our technical support.

KERAFIBER SYSTEM PRODUCTS:

SMOOTHING WALLS



Kiilto TM DF: Rapid, lightweight and dust-reduced filling plaster for interior walls in dry and wet areas. Ideal for e.g. filling of slots. Ready to be waterproofed after 24 h. Cement-based.

Kiilto OT Light: Lightweight smoothing plaster for walls in dry and wet areas. Good filling properties. Sprayable. Very low drying shrinkage. Also for outdoor use, when coated. Cement-based.

Kiilto OT: Fibre-reinforced smoothing and patching plaster for walls in dry and wet areas. Good filling properties. Also for outdoor use, when coated. Cement-based.

Kiilto OTR: Sprayable smoothing plaster for walls in dry and wet areas. Good filling properties. Also for outdoor use, when coated. Cement-based.

Kiilto TT: Levelling plaster for brick walls and for patching walls in dry and wet areas. Also for outdoor use. Cement-based.

Kiilto SR DF: Dust-reduced, quick drying straightening plaster for walls and ceilings in wet areas. Ideal for smoothing concrete and block walls prior to waterproofing and tiling. Cement-based. Quick drying!

Kiilto SK: Levelling plaster for walls and ceilings in wet areas. Ideal for smoothing concrete and block walls prior to waterproofing and tiling. Also for outdoor use. Cement-based.

Kiilto CR DF: Very fast finishing plaster for wet areas. Also suitable for dry areas and overlevelling waterproofed walls after air leakage sealings prior to surface finishing.

LEVELLING AND SMOOTHING FLOORS



Kiilto Start Primer: Primer for improving adhesion between the levelling compound and substrate. Water-based.

Kiilto 60: Fast setting and drying floor screed for castings and fillings of floors and the construction of slopes in interior areas. One sack provides approx. 11 litres of screed. Low alkali. Cement-based.

Kiilto 70: High strength floor screed for casting, filling and construction of slopes indoors and outdoors. Easy to finish with a float. One sack provides approx. 11 litres of screed. Low alkali. Cement-based.

Kiilto 80: Levelling screed for correcting slopes. One sack provides approx. 12 litres of screed. Low alkali. Cement-based. For indoor and outdoor use.

Kiilto Floor Heat DF: Dust-reduced, levelling screed containing reinforcing fibres and flexibility and adhesion improving additives for floors with underfloor heating. Suitable for warm water tubing or electric cables. Can also be used as a multi-purpose levelling screed. One sack provides approx. 12 litres of screed. Low alkali. Cement-based.

Kiilto TopPlan DF: Dust-reduced smoothing compound, especially for floors that will be covered. Good self-levelling properties. Provides a strong and smooth surface. Also suitable for floors to be painted. Pumpable. Low alkali. Cement-based.

Kiilto 97 DF: Fine smoothing compound for floors before the floor covering is laid. Good self-levelling properties. Pumpable. Low alkali. Cement-based.

Kiilto Maxirapid: Fast curing levelling screed for levelling floors, filling of voids, patching and construction of slopes. Floor coverings can be installed after 2 hours. Also for outdoor use. Paintable. Low alkali. Cement-based.

Kiilto Easyrapid DF: Very fast, dust-reduced floor smoothing compound. Floor coverings can be installed after as little as 1-2 hours. No priming needed. Low alkali. Cement-based.

WATERPROOFING



Kiilto Keraprim: Primer to be used with brushable Kiilto waterproofing membranes to improve adhesion on top of levelling compound, concrete and board substrates approved for wet rooms. Water-based.

Kiilto Kerafiber Vedeneriste: Microfibre-reinforced, one-component waterproofing membrane for under tiling in indoor wet rooms. Sprayable. CE-labeled, ETA-approved, VTT Waterproofing system certificate 141/00.

Kiilto PrimerOne Nopea Tartuntapohjuste: Fast drying primer to improve adhesion between Kiilto waterproofing membrane and levelled, concrete or board substrates approved for wet rooms. Water-based.

FIXING CERAMIC TILES



Kiilto Superfix DF: Dust-reduced, light, non-sagging and economical flexible cementitious adhesive with light-weight filler for installing ceramic tiles. Ideal for large wall tiles. Longer open time. Also for outdoor use. C2TES1. C2ES2 when Kiilto Fixbinder added.

Kiilto Lightfix: Non-sagging and economical flexible cementitious adhesive with lightweight filler for installing ceramic tiles. Also for outdoor use. C1TES1.

Kiilto Saneerauslaisti: Non-sagging, multipurpose flexible cementitious adhesive for installing ceramic tiles. Long open time. Also for outdoor use. C2TES1. C2ES2 when Kiilto Fixbinder added.

Kiilto Kerapid DF: Very fast-setting cementitious adhesive for installing ceramic tiles, stone and moisture-sensitive natural stones. Ready for grouting after 2-5 hours. Also for outdoor use.

Kiilto HighFlex S2 DF: Dust-reduced, very lightweight white cementitious adhesive with good deformation properties. Ideal for demanding tiling work e.g. glass mosaic, natural stone, such as marble, stove backgrounds and prefabricated steel panel bathroom pods. C2TES2. Also for outdoor use. Cement-based.

Kiilto Lattialaasti DF: Fast, dust-reduced flexible tiling adhesive ideal for large ceramic tiles and stones on floors in dry and wet areas. Ready to be grouted after 5 hours. Also for outdoor use. C2FES1. C2ES2 when Kiilto Fixbinder added.

Kiilto Floorfix DF: Dust-reduced, flexible cementitious adhesive ideal for large floor tiles and stones in dry and wet areas. Not suitable for moisture-sensitive materials. Ready for grouting after 16 h. Also for outdoor use. C2ES1. C2ES2 when Kiilto Fixbinder added.

GROUTING AND SEALING



Kiilto Saumalaasti: Water-repellent, CG2 classified tile grout for tiles and clinker tiles on walls and floors. Also for outdoor use. Joint width 1-6 mm. Cement-based.

Kiilto Lattiasaumalaasti: Fast tile grout for clinker tiles and stone. Also for outdoor use. Joint width 2-12 mm. Cement-based.

Kiilto Saniteettisilikoni: Anti-fungicide, odourless and neutral silicone sealant for movement joints and joint sealing. Colours match with the colours of Kiilto Saumalaasti. Also for outdoor use. Not for aquariums.

Kiilto Masa Liima- ja tiivistemassa: One-component adhesive sealant for gluing and sealing laths, construction boards, metals, fibre glass and different types of plastics in the ship and boat industry as well as transportation industry. Also suitable for movement joints exposed to mechanical stress.