



KIILTO WATERPROOFING SYSTEMS



| SYSTEM | KIILTO KERAPRO | KIILTO KERAFIBER | KIILTO KERAMIX A+X | KIILTO KERASAFE |
|---|--|---|---|--|
| emission class for building materials | M1 | M1 | M1 | M1 |
| certification | <ul style="list-style-type: none"> ETA 12/12/2018 Test report/ air leakage + radon 30/9/2016 Test report VTT-S-00460-18 Kiilto XPU-inlets TG 20671 | <ul style="list-style-type: none"> ETA 11/0018 6/8/2018 VTT 141/00 4/9/2018 | <ul style="list-style-type: none"> ETA 16/0876 6/8/2018 Test report/air leakage + radon 30/9/2016 | <ul style="list-style-type: none"> ETA 18/0026 24/1/2018 TG 20672 Byggkeramikrådet |
| colour | orange | turquoise | grey | green |
| consistency | gel, liquid, non-sagging | gel, liquid, non-sagging | cement based, coarse gel, non-sagging | strong, dimensionally stable, durable foil |
| application method | roll, brush, spray | roll, brush, spray | roll, brush | foils are glued to the substrate |
| working temperature | +15 - +25 °C | +15 - +25 °C | +15 - +25 °C | +15 - +25 °C |
| priming | Kiilto PrimerOne, Kiilto Keraprimer | Kiilto PrimerOne, Kiilto Keraprimer | Kiilto PrimerOne, Kiilto Keraprimer, Fibergum Primer | Kiilto Keraprimer can be used, see instructions |
| sealing inlets | Reinforcements + waterproofing membrane, Kiilto XPU fix | Reinforcements + waterproofing membrane, Kiilto XPU fix | Reinforcements + waterproofing membrane or paste mix | Reinforcements + adhesive |
| substrate humidity | Smoothed floors and walls can be waterproofed according to the drying time indicated in the technical data sheet, concrete substrate < 90 % RH | Smoothed floors and walls can be waterproofed according to the drying time indicated in the technical data sheet, concrete substrate < 90 % RH | Smoothed floors and walls can be waterproofed according to the drying time indicated in the technical data sheet New concrete < 90 % RH, old concrete < 95 % RH. Note that the surrounding structures may require lower concrete moisture value than the waterproofing membrane. | Board 8-12 % RH < 85% RH with Kiilto M1000 ECO or Kiilto Floor Plus adhesives |
| drying time | Roll wet on wet. Total drying time approx. 3 h | approx. 2 h (1st layer), approx. 6 h (2nd layer) | approx 1 h (1st layer + approx. 1.5 h (2nd layer) | Adhesive used: Kiilto KeraSafe Speed A+X Coatable: Walls: tiling can be carried immediately after Kiilto KeraSafe+ Foil installation. Start with the same wall you started with KeraSafe + Foil. Floors: 2 h after Kiilto KeraSafe + installation |
| required thickness of dry membrane layer | walls 0.5 mm, floors 0.5 mm | walls 0.4 mm, floors 0.5 mm | walls ja floors 0.8 mm | standard, foil 0.5 mm |
| measuring method of dry membrane | Test sample with a loupe, ultrasonic device | Test sample with a loupe, ultrasonic device | Test sample with a loupe | N/A |
| water vapour permeability | $W = 39 \cdot 10^{-12} \text{ kg(m}^2\text{s*Pa)}$, Sd = 5.1 m | Walls $W = 33 \cdot 10^{-12} \text{ kg(m}^2\text{s*Pa)}$, Sd = 6 m Floor $W = 30 \cdot 10^{-12} \text{ kg(m}^2\text{s*Pa)}$, Sd = 6.5 m | $W = 90 \cdot 10^{-12} \text{ kg(m}^2\text{s*Pa)}$, Sd = 2.2 m | $W = 2,8 \cdot 10^{-12} \text{ kg(m}^2\text{s*Pa)}$, Sd = 71 m Z > 1 000 000 s/m |
| crack bridging ability | Category 2: 0.75 mm (consumption 1.0 kg/m ²) ETAG 022 | Category 1: 0.4 mm (consumption 0.8 kg/m ²) Category 2: 0.75 mm (consumption 1.0 kg/m ²) Category 3: 1.5 mm (consumption 2.6 kg/m ² or 1.4 kg/m ² with Kiilto Nurkkavahvikenauha tape) ETAG 022 | Category 1: 0.4 mm (consumption 1.5 kg/m ²) ETAG > 0.75 mm [EN 14891] > 0.75 mm (-5°) [EN 14891] | > 1.5 mm (Category 3) ETAG 022 |
| elongation at break | - | - | - | > 100 % (longitudinal) > 200 % (transverse) |
| bond strength | ≥ 0.5 Mpa | ≥ 0.5 Mpa | ≥ 0.5 Mpa | ≥ 0.3 Mpa - ETA |
| density / specific weight | 1.35 kg/l | 1.30 kg/l | approx. 1.2 kg/l | approx. 325 g/m ² |
| type/ binder | Synthetic SBR-rubber | Synthetic SBR-rubber | Styrene acrylate (A-component) and cement (X-component) | Elastomer foil, PP fleece |
| viscosity | approx. 45 000 mPas | approx. 40 000 mPas | - | - |
| thermal resistance, finished membrane | max 70 °C | max 70 °C | max 70 °C | max 70 °C |
| consumption | floors and walls min. 0.75 l/m ² = 1 kg/m ² (min. 2 x) | floors min. 0.8 l/m ² = 1 kg/m ² (min. 2x) walls min. 0.6 l/m ² = 0.8 kg/m ² (min. 2x) | 1.5 kg/m ² mixed mass (two applications) | Foil width 1 m, Kiilto KeraSafe Speed A+X adhesive 0.6 kg/m ² |
| package size | 1 l, 5 l, 10 l, 15 l | 1 l, 5 l, 10 l, 15 l | 5 + 5 kg, 10 + 10 kg | Kiilto KeraSafe+ foil 1 x 30 m, Kiilto KeraSafe Speed A+X adhesive 5 kg + 3.33 kg |
| storage | 1 year, when stored unopened above +1 °C | 1 year, when stored unopened above +1 °C | 1 year, when stored unopened above +1 °C | 1 year when stored unopened above +1 °C (foil and adhesive) |
| applicability | Wet areas indoors, also public spaces. Not suitable for waterproofing swimming pools. Radon and air leakage repairs. | Wet areas indoors, also public spaces. Not suitable for waterproofing swimming pools. | Wet areas indoors, unheated wet areas, balconies, terraces outdoors. Also for public spaces. Not suitable for waterproofing swimming pools. | Wet areas indoors, also public spaces. Areas that require extra protection against leaks or areas with unstable structure. |
| suitable environments | Indoors: Bathrooms, shower rooms in homes, sports halls and factories, locker rooms, saunas, utility rooms, mud stoppers, kitchens, halls. Sealing leakages. | Indoors: Bathrooms, shower rooms in homes, sports halls and factories, locker rooms, saunas, utility rooms, mud stoppers, kitchens and halls. | Indoors: Bathrooms, shower rooms in homes, sports halls and factories, locker rooms, saunas, utility rooms, mud stoppers, kitchens and halls indoors. Sealing leakages. Outdoors: Tiled balconies and terraces. Unheated wet rooms and waterproofed areas, eg. in cottages or public spaces. | Indoors: Bathrooms, shower rooms in homes, sports halls and factories, locker rooms, saunas, utility rooms, mud stoppers, kitchens and halls indoors. Wet rooms with board structure. Renovated areas and areas that require extra protection against leakages. Structures that require special strength from waterproofing. |
| special properties | For fast-track projects - waterproofing can be done in one go: no need to wait drying between layers, see the application guide. Sealing inlets with Kiilto XPU fix without reinforcements. Sprayable - for fast-track, repetitive and large projects. | Traditional. Sealing inlets on walls with Kiilto XPU fix without reinforcements. Sprayable - for fast-track, repetitive and large projects. | Projects that require rapid drying from the waterproofing membrane. Two component, frost tested. Sealing inlets with reinforcements or paste mix. The best water vapour permeability of Kiilto waterproofing systems. | Foil. Standard layer thickness, no measuring. Easy to repair and tile. Water vapour proof. Very durable. Ready for tiling soon after installation. |
| partial repairs | Kiilto KeraPro with overlaps of min. 30 mm on a clean existing waterproofing membrane layer | Kiilto Kerafiber with overlaps of min. 30 mm on a clean existing waterproofing membrane layer | Kiilto Keramix A+X with overlaps of min. 30 mm on a clean existing waterproofing membrane layer | Overlaps of min. 30 mm on a clean existing foil. |
| overlaps | Kiilto Kerapro, Kiilto Keramix A+X, Kiilto KeraSafe | Kiilto KeraPro, Kiilto Keramix A+X, Kiilto KeraSafe | Kiilto KeraPro, Kiilto Kerafiber, Kiilto KeraSafe | Kiilto KeraPro, Kiilto Kerafiber, Kiilto Keramix A+X |