EP21

Organic resin for the consolidation of absorbent substrates, the creation of finishings and epoxy screeds, and waterproofing of cement-based substrates with high residual moisture.

EP21 raises the mechanical resistance of inconsistent substrates and waterproofs them to protect hardwood floors from residual humidity, for a 100% safe laying.

GREENBUILDING RATING
REF. GBR DATA REPORT 05.23
APPROVED

Rating 3

- ✓ VOC Low Emission
- × Water Based
- ✓ Solvent ≤ 15 g/kg
- × Low Ecological Impact
- ✓ Health Care

1. Very high consolidation effectiveness
2. Specifically intended for low-absorption substrates
3. Ideal for applications in poorly ventilated areas and in renovation work
4. Suitable for the consolidation of substrates even with underfloor heating systems
5. Up to 5% CM high residual humidity waterproofing product
6. Approved for marine use

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Areas of application

→ Use
Consolidation of absorbent substrates and waterproofing of absorbent cement-based substrates with high residual humidity (MC max 5% CM – RH max 90%). Creation of synthetic finishings and screeds.

Compatible adhesives:
- organic mineral reactive two-component adhesives
- organic mineral reactive single-component adhesives
- reactive single-component and two-component adhesives

Substrates:
- mineral screeds
- calcium sulphate screeds
- cement-based screeds
- heated subfloors

Systems suitable for overlaying:
- Cementoresina floors
- resin floors systems from the Factory range

For internal and external use, in domestic and commercial environments. Suitable for the consolidation of substrates even with underfloor heating systems.

→ Field of application Directive CE MED
Two-component organic resin.
Mass per area (g/m²) 40 ± 10%.
As decks finishing materials. The product may be applied to any non-combustibile support, any metallic support or any material having low flame spread characteristics.

→ Do not use on non-absorbent substrates (marble, ceramic, etc.); on substrates subject to moisture rising; to waterproof cement-based heated screeds with residual humidity > 2% CM; to waterproof calcium sulphate screeds with residual humidity > 0.5% CM or heated anhydrite screeds with residual humidity > 0.2% CM; to waterproof damp-sensitive substrates. Do not use if the temperature of the substrate is not at least 3 °C above the dew point.

Instructions for use

→ Preparation of substrates
Substrates must be absorbent, dimensionally stable, non-deformable, clean and free of any moisture rising, cracks and separating substances.
Any cracks must be repaired with Kerarep.
Substrates with a compact, low-absorption surface layer must be abraded and have dust carefully removed to allow the EP21 to penetrate.
Prepare calcium sulphate screeds according to the manufacturer's instructions.

→ Preparation
Pour Part A into a clean container, and add Part B in the ratio of Part A : Part B = 2.5 : 1 and mix carefully, preferably with an electric mixer with a rotation speed of 300 - 600 rpm, until the mixture is uniform.

→ Application
- As a surface reinforcement: dilute with Keragrip Eco Pulep at 15% according to the absorbency of the substrate and apply evenly with a brush or roller in a single coat, with a coverage of ≈ 0.2 kg/m². When applying on substrates that do not guarantee complete absorption of EP21, broadcast Quarzo 5.12 over the product to sand blind while it is still fresh.
- As a deep reinforcement: dilute with Keragrip Eco Pulep at 30% according to the absorbency of the substrate and apply evenly with a brush or roller in a single coat, with a coverage of ≈ 0.3 - 0.4 kg/m². When applying on substrates that do not guarantee complete absorption of EP21, broadcast Quarzo 5.12 over the product to sand blind while it is still fresh.
- As a moisture barrier/waterproofing (max. residual humidity max MC 5% CM or 90% RH): dilute with Keragrip Eco Pulep at 15% according to the absorbency of the substrate and apply the first coat evenly with a brush or roller. When fully dry, apply the second coat of product as it is. Use coverage of ≈ 300 - 400 ml/m². When applying on substrates that do not guarantee complete absorption of EP21, broadcast Quarzo 5.12 over the product to sand blind while it is still fresh.
- To prepare epoxy finishings: mix with Quarzo 1.3 until a mixture of appropriate consistency is obtained (approximately 1 part EP21 and 1 - 2 parts Quarzo 1.3); apply wet-on-wet only after having primed the area with the same product.

Instructions for use

- To prepare epoxy screeds: mix with Quarzo 5.12 until a mixture of appropriate consistency is obtained (approximately 1 part EP21 and 8 - 10 parts Quarzo 5.12 with a consumption of ≈ 0.2 kg/mm/m² of EP21 and 1.6-2 kg/mm/m² of Quarzo 5.12); apply wet-on-wet only after having primed the area with the same product.
- As waterproofing (max. residual humidity 5% CM): dilute with up to 15% Keragrip Eco Pulep according to the absorbency of the substrate and apply the first coat evenly with a brush or roller. When fully dry, apply the second coat of product as it is. Use coverage of ≈ 0.3 - 0.4 kg/m². When applying on substrates that do not guarantee complete absorption of EP21, broadcast Quarzo 5.12 over the product to sand blind while it is still fresh. Do not use to waterproof heated screeds in general, calcium sulphate screeds and substrates that are sensitive to damp.
- As a primer and as a surface consolidant in Factory systems: dilute with Keragrip Eco Pulep up to 30% and apply an amount that can be fully absorbed by the substrate evenly using a roller or spreader. Should there be any accidental build-up of product or incomplete absorption, it is necessary, using suitable tools, to eliminate the excess product and to rough the surface to guarantee sufficient grip; finally, vacuum up the waste carefully before proceeding with subsequent applications. Generally speaking, coats of other products must be applied within a maximum of 30 hours. If waiting times are longer the surface must be sanded to make it rough and any sanding waste must be eliminated using extraction equipment before applying the next coat.

→ Cleaning
The product can be removed from tools with a suitable thinner. After EP21 has hardened it can only be removed mechanically.

Special notes

→ Direct bonding with reactive two-component mineral organic adhesives or application of resin-based systems must be carried out within a few days after EP21 has hardened; longer waiting times may cause adhesion problems. If a longer wait is anticipated, the final coat of EP21 should be broadcast with Quarzo 5.12 or Quarzo 1.3 while it is still fresh.

→ When bonding with reactive, single component, organic mineral adhesives, always broadcast Quarzo 5.12 or Quarzo 1.3 over the product to sand blind while it is still fresh.

→ Before the next application with a cement-based levelling and self-levelling products apply Keragrip Eco on EP21 when fully dry, or broadcast the last coat of EP21 with Quarzo 5.12 while it is still fresh.

Certificates and marks

CE EN 13813 · UKCA BS EN 13813 · SR B2,0 EN 13813 · GEV-EMICODE EC 1 PLUS very low emission · eco Base

Technical Data compliant with Kerakoll Quality Standard		
Appearance:		
- Part A	transparent liquid	
- Part B	straw yellow transparent liquid	
Specific weight:		
- Part A	1.10 kg/dm³	
- Part B	1.00 kg/dm³	
Shelf life	≈ 12 months from the date of production in original and intact packaging	
Warning	protect from frost, avoid direct exposure to sunlight and sources of heat	
Pack	part A 2.5 kg can - part B 1 kg bottle	
Viscosity	≈ 300 mPa · s, rotor 2 RPM 20	Brookfield method
Temperature range for application	from +10 °C to +35 °C	
Mixing ratio	Part A : Part B = 2.5 : 1	
Dilution	Keragrip Eco Pulep (max 30%)	
Pot life	≈ 30 min.	
Open time	≈ 30 min.	
Waiting time between the coats	≈ 4 - 12 hrs	
Waiting time for next application	≈ 24 hrs	
Coverage:		
- to stabilise on the surface	≈ 0.2 kg/m²	
- to strengthen on and below the surface	≈ 0.3 - 0.4 kg/m²	
- to create epoxy screeds (mixing ratio EP21:Quarzo 5.12=1:10)	≈ 0.2 kg/m² per mm of thickness	
- to use as moisture barrier against residual humidity	≈ 0.3 - 0.4 kg/m²	

Values taken at +23 °C, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e. temperature, ventilation and absorbency level of the substrate.

Performance		
VOC Indoor Air Quality (IAQ) - Volatile organic compound emissions		
Conformity	EC 1 plus GEV-Emicode	GEV certified 2472/11.01.02
HIGH-TECH		
Permeability to water vapour	SD < 5 m	EN ISO 7783

Warning

→ Product for professional use
→ abide by any standards and national regulations
→ wait until the product is fully dry and the solvent has evaporated before proceeding with subsequent steps. This period will differ depending on environmental conditions, how well the premises are ventilated, the nature of the substrate, and the quantity applied
→ aerate all environments during and after use until the product has fully hardened
→ if necessary, ask for the safety data sheet
→ for any other issues, contact the Kerakoll Worldwide Global Service 01772 456 831 - info@kerakoll.co.uk

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