P5 Eco

Eco-friendly, water-based elastomeric latex for use as a high-performance additive in cement-based mortars and fine-grain concretes, ideal for use in GreenBuilding. Solvent-free, safeguards the health of both users and the environment.

P5 Eco increases substrate adhesion, reduces water absorption and enhances the level of compactness and flexibility. For slurry keys used in additional casting layers and in restoration work. Internal, external.

GREENBUILDING RATING®

P5 Eco
- Category: Liquid organic products
- Class: Eco-friendly solutions for building sites
- Rating: Eco 4

eco4	Low Emission IAQ VOC Indoor Air Quality	Water Based	SLV REDUCED Solvent ≤ 80 g/kg	Low Ecological Impact	Health Care
		✓	✓	✓	✓
		Water-based formulation	Solvent-free	No environmental hazard rating	Non-toxic and non-hazardous

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

ECO NOTES

- Water-based, limits the risk of loads that could be harmful and dangerous to the environment during storage and transportation
- Improved on-site safety guaranteed

PRODUCT STRENGTHS

- As an additive for mortars, fine and standard-grain concrete and adhesive slurries
- High-adherence plasters with high chemical and mechanical resistance
- Cement-based rendering and patching
- Flexible mineral or cement-based finish coatings
- Preparation of slurry keys for:
  - restoration or reconstruction of concrete on beams, pillars, balconies and cornices
  - casting layers in concrete

AREAS OF USE

As an additive in mortars and fine-grain concretes and in the preparation of slurry keys for:
- restoration or reconstruction of concrete on beams, pillars, balconies and cornices
- casting layers in concrete
- high-adherence plasters with high chemical and mechanical resistance
- flexible cement finishing
- cement-based rendering and patching

Use
For internal and external use. For traditional cement-based mortars, fine-grain concrete, standard concrete and adhesive slurries.

Do not use
As a primer in additional casting layers on cement-based substrates when undiluted or diluted with water.

INSTRUCTIONS FOR USE

Preparation of substrates
Slurries and mortars containing P5 Eco must be applied to cured surfaces that are clean, solid and free from oil, grease and efflorescences. Residual traces of parting compounds should be removed. It is always advisable to dampen the substrate before application.

00119P5 Eco Code: E529 2014/02 EN

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INSTRUCTIONS FOR USE

Preparation
Mix P5 Eco and the water in advance to the desired ratio and then add the cement and sand. Mix carefully to prevent the formation of lumps. The recommended mixing ratios are as follows:
- adhesive slurries: 1.5 part P5 Eco, 1 part water, 3 parts cement.
- cement-based mortars with additives: 1.5 part P5 Eco, 2 parts water, 5 parts cement, 10 parts sand.
The dosages for mortar composition may vary according to use.
The dosage of P5 Eco must be between a minimum of 20% and a maximum of 40% of the weight of the cement.

Application
Cement-based mortars with additives for the reconstruction of concrete on columns, beams, balconies and cornices: dampen the substrate and apply a rough coat of adhesive slurry using a hard brush. While it is still fresh, carry out the reconstruction with the cement-based mortar with additives.
Anti-debonding and high-performance plasters: dampen the substrate and manually apply an adhesive first coat, leaving the surface as rough as possible. When the first coat has hardened, apply the layer of plaster using cement-based mortar with additives.
Slurry keys for concrete construction joints: dampen the substrate and apply a coat of adhesive slurry, followed immediately by the concrete casting while the previous coat is still fresh.

Cleaning
Tools and surfaces covered with residues of slurry or mortar with additives should be cleaned with water before final hardening takes place.

SPECIAL NOTES

Dilute P5 Eco in the mixing water. When mixing additives with ready-mixed mortars or plasters for mechanised applications, draw the water/latex mix directly from a container (drum) set aside for this purpose on the building site, using the lift pipe of the spray machine.

ABSTRACT

Anchoring slurry: before patching concrete with mortar roughen the surface using mechanical means, wash thoroughly with a high pressure washer and lay a slurry key made up of cement, water and eco-friendly, water-based flexibilizing agent for use as a high-performance additive in cementitious mortars and fine-grain concretes, GreenBuilding Rating® Eco 4, such as P5 Eco by Kerakoll Spa, in a ratio of 40% by weight of the cement. Add the patch layer to the freshly applied slurry.

Additives for cement-based mortars: cementitious mortars must be mixed with eco-friendly, water-based flexibilizing agent for use as a high-performance additive in cementitious mortars and fine-grain concretes, GreenBuilding Rating® Eco 4, such as P5 Eco by Kerakoll Spa, in a ratio of 30% by weight of the cement to make the mortar compact, adhesive and flexible.

Additives for standard and fine-grain concretes: standard and fine-grain concretes must be mixed with eco-friendly, water-based flexibilizing agent for use as a high-performance additive in cementitious mortars and fine-grain concretes, GreenBuilding Rating® Eco 4, such as P5 Eco by Kerakoll Spa, in a ratio of 20% by weight of the cement to make the concrete compact, adhesive and flexible.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	White liquid	
Specific weight	≈ 1,01 kg/dm^3	
Shelf life:	≈ 12 months in the original packaging	
Warning	Protect from frost, avoid direct exposure to sunlight and sources of heat	
Pack	25 / 5 / 1 kg cans	
Viscosity	≈ 1200 mPa · s, rotor 2 RPM 20	Brookfield method
pH	≈ 9	
Recommended ratios for:		
- concrete	≈ 20 – 40% of the weight of cement	
- mortar	≈ 20 – 40% of the weight of cement	
- adhesive slurry	≈ 1.5 P5 Eco : 1 water : 3 cement	
Temperature range for application	from +5 °C to +35 °C	

Values taken at +23 °C, 50% R.H. and no ventilation.

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PERFORMANCE

HIGH-TECH		
Comparison between:		
- standard mortar	3 sand : 1 Portland 32.5 cement; water/cement = 0.5	
- standard mortar with additive	standard mortar + P5 Eco equal to 30% of the weight of the cement	
Improvements achieved with P5 Eco:		
- mixing water	-3%	
- static modulus of elasticity	-38%	UNI 6556
- adhesion to concrete after 28 days	+5% (breakage mortar)	CSTB 2893-370
- shear strength on concrete after 28 days	+75%	
Comparison between:		
- construction joint on concrete	without slurry key	
- construction joint on concrete	with slurry key (1 P5 Eco : 1 water : 3 cement)	
Improvements achieved with P5 Eco:		
- adhesion to concrete after 28 days	+45%	CSTB 2893-370
- shear strength on concrete after 28 days	+51%	

Values taken at +20 ± 2 °C, 65 ± 5% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- use at temperatures between +5 °C and +35 °C
- protect the product from frost, store at a temperature above +5 °C
- protect the applied product from sun and direct rainfall until it has dried completely
- it is advisable to keep the applied product wet for several days after carrying out the work, especially in summer
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

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The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in January 2014 (ref. GBR Data Report -02.14); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see www.kerakoll.com. KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.

Kerakoll Quality System
ISO 9001 CERTIFIED

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