Data Sheet

Pava 101®

Water-based epoxy primer

Composition

Water-based, fluid, emulsifiable, water-soluble two-component epoxy formulation with low viscosity and high wetting power, with catalysis ratio between Base and Reagent 1 to 1.
VOC lim 30 g/l - actual VOC < 25 g/l (excluding water).

Fields of application

Reform 101 is mainly used as an adhesion promoter on horizontal and vertical cementitious substrates. Applied on porous substrates, it is also able to consolidate the surface.
Adhesion bridge for cast-in-place applications on cement and concrete substrates for fresh application and for backfill thicknesses of not less than 1 cm.
Sealing, filling and welding cracks and fissures in cement and concrete support screeds.
Anchoring and sealing of metal and carbon fibre connectors in 'sewn gap' works of cement and concrete support screeds.
Operating temperature -25° C to +40° C.

Marking

EN 1504-2

Coating for concrete surface protection

- protection against penetration risks (1.3)
- moisture control (2.2)
- physical resistance (5.1)
- increasing resistivity (8.2)

Certifications

- Protective coating of concrete according to EN 1504-2, DoP nr 161015-2018, Factory Production Control Body certification nr. 0546, certificate 2017, CE marking.
- Fire certification class BfI-S1 (EN 13501-1).
- EPA (Environmental Protection Agency) according to EN-ISO 16000 and AgBB "Assessment procedure for VOC emissions from construction products" Report nr. 162477-002, 19/01/2017.
- LEED compliance for low emitting materials, EQ Credit 4.1-4.2-4.3, reduction of pollutant emissions (VOC) inside buildings.

0474/20 CERTIFICATE No. MED 213419CS

Surface materials and floor coverings with low flame-spread characteristics.

Fire protection requirements of Marine Equipment Directive (MED) 2014/90/EU, according to standards of Regulation (EU) 2019/1397. Certified by Rina Services S.p.A. (Notified Body No. 0474).

ISO 17/6:2010

IMO 20/0 FTP Code Part 5

Quality

The product undergoes careful and constant control in our laboratories. The raw materials used are rigorously selected and controlled.

The Special Provision (DS 375) of ADR for ROAD, MARITIME and AIR transport provides full exemption for environmental pollutants marked with UN number 3082 when transported in packages with a net content of less than 5 litres (due to the relative density of about 1.13 g/cm3 of the Basic Component, the total in litres is less than the 5 litres required by the regulation). See Safety Data Sheet.

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Technical specifications	**Results**	**Method**
Catalysis ratio	Combine 100 parts by weight of Base with 100 parts by weight of Reagent. All Pava formulations must be mixed thoroughly before proceeding to the various application steps. Manual mixing is not permitted; incorrect mixing will result in incomplete hardening of the coating. Pre-mix component A (Base) with propeller/shovel mixer, then add the second component B (reagent) and mix for a minimum of 3 minutes until the mixture is homogeneous in density and colour. Perfectly emulsify the two components until a uniform creamy white appearance is obtained; add at least 50 per cent of the required amount of water and mix well to reduce the viscosity of the system; then add the remaining dilution water and mix again. Combine the different components, taking care to mix thoroughly by stirring at low speed in order to obtain a homogeneous colour mixture. It is recommended to take particular care when mixing all the mixture within the individual components; with the help of a spatula/knife, collect the product from the walls/bottom of the pot in order to maintain the catalysis ratios.	13 IST 21
Specific Weight	A 1,09 – 1,15 g/cm³ (*) B 1,03 – 1,10 g/cm³ (*) 1,05 - 1,13 g/cm³ at 20 ± 2°C.	ASTM D 1475 EN ISO 2811-1
High Solid Content	70 – 75%.	ASTM D 2369 EN ISO 3251
Viscosity at 25 ± 2°C	A 292 – 437 mPa s. (*) B 530 – 795 mPa s. (*) 800 - 2500 mPa s.	ASTM D 2196 EN ISO 3219
Dilution	Dilute with clean (not iced) water in a ratio of up to 1 : 1.5 (resin : water) as ADHESION PROMOTER depending on the type of substrate (porosity, absorption, etc.) adding the water slowly. Dilute with clean (not ice-cold) water in a ratio of up to 1 : 3 (resin : water) as an ANTI-DUST depending on the type of substrate (porosity, absorption, etc.) adding the water slowly; if the surface is particularly wet, reduce the amount of water in the dilution.	13 IST 21
Mixing duration	Pot-life of 60 - 70 minutes at 20 ± 2°C and 50 ± 10 % R.H.	13 IST 22 EN 9514
Drying and curing	Dry to the touch after 14 to 16 hours at 20 ± 2°C and 50 ± 10 % RH; curing time 4 to 7 days depending on ambient conditions, Tendency to matting and clouding at low temperatures (< 10°C) and high RH (> 70 %).	ASTM D 1640 EN ISO 866
Covering	After 24 - 48 hours depending on temperature, substrate humidity (less than 4% - measured with a carbide hygrometer) and existing air exchange. Compatibility and overpaintability, consult Technical Department.	ASTM D 1640
Consumption and Yield	As adhesion promoter and anti-dust agent (theoretical per layer) 0.100 - 0.150 kg/m². As binder (theoretical per layer) 1.000 - 1.200 kg/m² (product loaded 1:8 with quartz) As a consolidating agent (theoretical per layer) 0.150 - 0.200 kg/m² These yields are indicative and depend on both the grain size of the filler used and the roughness of the substrate.	13 IST 03
Mineral filler	As an adhesion bridge, quartz 0.06-0.1 can be added up to 50% by weight, subject to	-

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addition	prior verification of the degree of wettability in the substrate and the application method to be used; or quartz 0.1-0.3 can be sown on the freshly applied product. As a crack sealant, the A+B mix can be loaded with 0.06-0.1 or 0.1-0.3 quartz up to 100% by weight, after testing for the correct viscosity depending on the width of the crack. For this specific use, after addition of the filler, the mix must be pourable and have a good penetration speed into the crack. This will ensure with subsequent passes, to penetrate deeply and adhere/weld almost all vertical surfaces.	
Film Appearance	Satin, yellowish; yellowing tendency due to UV exposure and wear.	-
Number of layers	- Adhesion promoter 1 (one) layer is recommended - Dust suppressant we recommend two layers; - Casting agent 1 (one) layer thick is recommended.	-
Tool washing	You can also clean the equipment with hot soapy water; if particularly thorough cleaning is required, use nitro or epoxy thinner.	-
Warehouse storage	12 months from the date of manufacture (lot no. on the label with AAMMGG), in the original, tightly closed packaging in a ventilated and dry place at a temperature not below 10 °C. Do not expose packages directly to the sun. Protect against frost. Transport must not take place below 10 °C. Otherwise the lorry must be insulated.	-

The system is not self-supporting according to UNI10966, but conditioned by the substrate; the specimens made not with film but according to UNI EN 13892-2. Results after 7 days at 25 ± 2°C.

Cls Adhesion (MPa) ASTM D 4541 EN 1542	4,29
Abrasion (1Kg 1000rpm) ASTM D 4060 EN ISO 5470/1	< 78 mg
Shore Surface Hardness EN ISO 866	> 95 A
Elongation Break	< 1,0

(*) Technical specification in the certificate of analysis

Surface preparation

Properly prepare the substrate by mechanical or manual abrasion, sanding or shot-blasting. Remove all loose parts by reconstructing any missing volumes with suitably filled resin mixtures. Dust the surface thoroughly and apply a specific adhesion promoter according to the nature of the substrate.

Any imperfections or irregularities that may compromise the final aesthetic effect must be corrected by mechanical preparation and/or regularisation of the substrate before the subsequent products are applied.

Traces of oil, grease, paint, efflorescence, etc. must always be removed in advance and carefully, as well as chalking or removable portions.

In the presence of cracking processes and/or crazing in the substrate, carefully verify the nature of these phenomena by assessing whether they are due to plastic shrinkage or structural-tension phenomena affecting the substrate itself. In the case of both static and dynamic phenomena, please consult our Technical Department in order to take appropriate action. No liability can fall on the product in the event that such cracking processes affect the product as, according also to UNI EN 10966, these systems are not self-supporting.

Before proceeding with the application of Pava products, preliminary treatment of all critical points is mandatory (any cracks in the substrate, corners, edges, vertical lapels, expansion and/or structural joints, channels, gutters, grates, eaves fittings, guttering and downpipes, steps and thresholds, skylights, plant piping and through-bodies).

Application

We recommend applying the product at temperatures ≥ 10°C and ≤ 35°C and Relative Humidity ≤ 70%.

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Conditions

Application under different environmental conditions could lead to aesthetic and/or technical defects of various kinds and failure to achieve the product's characteristics and performance. Consult the Technical Department in case of special situations.

Application

Brush and roller for diluted product at temperatures not below + 10 °C. In case of application on particularly stressed substrates, it is recommended to bury a reinforcing mesh; to do so, spread a coat of undiluted Reform 101 on the substrate previously primed with Reform 101 and bury the reinforcing mesh. After hardening, proceed with the application of structured products such as Trico Bar, Unico, Malta Design.

Colours and packs

Available in the following packages:

Base kg. 2,850 + Reag. kg. 2,850 = total kg. 5,700 B+R

Base kg. 5,000* + Reag. kg. 5,000 = total kg. 10,000 B+R.

Warnings

We do not recommend the use of products that, upon opening the container, should show signs of instability and/or degradation including thickening, crystallization, gelatinization, sedimentation, flotation, etc. due to improper storage of the material (temperature/humidity) either during transport or in the final storage or finally for use after the expiration date

It is highly recommended that, before using Pava products, you attend the applicator course. Anyone who uses these products without being licensed to do so does so at his or her own risk and without the responsibility of the manufacturer.

Technical Notes

With damp substrates or with counterthrust moisture ≥ 4% (measured with calcium carbide), blistering, blistering or detachment of the applied layers is possible.

In these cases, it is possible to manage the problem through the prior application of Trico Bar with a vapor brake function. Such a product should be applied in 2 coats for a total consumption of at least 1.5 kg/sqm. Consult the product's technical data sheet and the Technical Office for appropriate indications.

UNI Standard 11835

The UNI 11835 standard, in force since 2021, defines and certifies the figure of the applicators and commercial technicians of resin systems for horizontal and vertical interior and exterior surfaces, outlining their basic requirements, the set of knowledge, skills, autonomy and responsibilities that within the construction supply chain must distinguish and characterize these professional figures in their relations with public and private clients, companies, designers and specifiers.

The UNI 11835 standard incorporates the knowledge introduced by the new edition of the UNI 10966 standard and profiles the sector's operators more precisely, highlighting the sector's typical features. In addition, the standard delineates resin systems operators by dividing them into four professional figures (specialized resin systems installer, foreman resin systems installer, foreman decorative resin systems installer, and sales technician). For each professional figure, the relevant tasks are described, as well as the knowledge and skills required to perform them.

The field of resin coatings therefore requires, as described above, competence and professionalism. These can be certified according to UNI CEI EN ISO/IEC 17024 through a patent obtained through an exam (written, practical and oral test) taken with a third-party certified body, as defined by UNI 11835.

It is strongly recommended to join professionalizing activities in order to acquire the professional qualification license so as to possess the competences and skills listed in the prospectuses of the aforementioned UNI 11835 standard, which can be associated with level 4 as per the QNQ classification (Recommendation 2017/C189/03, Annex II). Therefore, no responsibility can fall on the manufacturer in case the operator is not in possession of the qualification license and the consequent validated skills, in case of improper use or flaws in the works carried out, as the products must be intended for strictly professional use.

Product for professional use

Keep out of the reach of children. During use and drying, ventilate the premises well. Do not eat, drink or smoke during use. Wear protective gloves and goggles during use and use the usual precautions for handling chemicals. In case of contact with eyes or skin wash immediately with plenty of water and seek medical advice. In case of ingestion contact a poison control center or doctor immediately. Air the premises before staying there.

The above products are found to have a low environmental impact and make it possible to abate solvent pollution while improving quality, safety and hygiene for the user. We recommend scrupulous compliance with the hygiene regulations in use for handling resins (Circ. Min. Lav. 46/1979 and 61/1989). For info ns safety data sheet.

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QR-CODE

The label of each product shows the relevant QR-CODE for viewing and downloading the data sheet. In case of failure to download, please contact the Technical Department.

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