

Pava Idrogel®

Lucid/opaque

Transparent two-component polyurethane in water emulsion

Composition

Transparent (pigmentable) or pigmented two-component polyurethane product in water emulsion made from special resins and designed to allow intense cross-linking, fast curing. The product offers lightfastness (U.V.) with minimal yellowing and no chalking. Good resistance to weathering, diluted chemicals.

IdroGel is an anti-carbonation product.

High viscosity.

TRANSPARENT VOC lim 140 g/l - real VOC 45g/l.

Fields of application

Made in GEL version for gloss or matt final coats (Topcoat) over epoxy and/or epoxy-polyurethane cycles to maintain lightfastness and inhibit chalking of the underlying coatings. The product is walkable according to the UNI EN ISO 10545-7 and UNI EN 14411 normative references in relation to the system to which it is applied. On absorbent substrates it produces a "wet" effect. To be applied by trowel or roller (suitably diluted). Optionally pigmentable.

Operating temperature -10° C to +40° C.

Marking

EN 1504-2

Coating for concrete surface protection

- protection against penetration risks (1.3)
- humidity control (2.2)
- physical resistance (5.1)
- increased resistivity (8.2)

Certifications

- Protective coating of concrete according to EN 1504-2, PDO nr 141023 - 2013, Factory Production Control Body certification nr. 0546, certificate 2017, issuing CE marking.
- Fire certification class Bfl-S1 (EN 13501-1).
- Product capable of inhibiting bacterial proliferation according to INI 1102I.
- EPA (Environmental Protection Agency) certified for very low emissions, according to EN-ISO 16000 and AgBB 'Assessment procedure for VOC emissions from construction products' Report no. 161710-003, 28/10/2016.
- LEED compliance for low emitting materials, EQ Credit 4.1-4.2-4.3, reduction of pollutant emissions (VOC) inside buildings.
- Stain resistance in accordance with UNI 10545 and UNI 10792.

Quality

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

Technical specifications

Results

Method

Catalysis ratio	Neutral version: 100 parts by weight of Base with 20 parts by weight of Reag. XW. COLOURED version (p10): 100 parts by weight of Base with 18 parts by weight of Reag. XW. COLOURED version (p20): 100 parts by weight of Base with 16 parts by weight of Reag. XW. COLOURED version (p30): 100 parts by weight of Base with 14 parts by weight of Reag.	13 IST 21
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XW.

All Pava Resine 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.

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 scoop out the product from the walls/bottom of the pot in order to maintain the catalysis ratios.

Pre-mix component A (Base) with a propeller/blender and then add the second component B (reagent) and mix for a minimum of 3 minutes until the mixture is homogeneous in density and colour.

For the coloured version, it is recommended to use the complete packages. If it is necessary to divide the packages, take care to mix all the coloured component well to disperse the pigments evenly. Then, with the help of a precision balance, divide the components, taking scrupulous care to maintain the catalysis ratios of the individual elements, so as not to incur poor performance.

Observe particular care in the partial use of the 'Part B-reagent' package and its subsequent closure and re-opening for re-use. In order to preserve the contents, it is necessary to apply a certain amount of pressure to the can once it has been closed again in order to allow as much air to escape as possible; afterwards, it is advisable to turn the can upside down for 3 to 5 minutes: this promotes the formation of a film of product near the edge of the lid, which reacts with the moisture to re-seal the contents and thus favour a longer life for the product inside.

Specific Weight	1.00 - 1.20 g/cm ³ at 20 ± 2 °C (transparent version); 1.05 - 1.25 g/cm ³ at 20 ± 2 °C (coloured version).	ASTM D 1475 EN ISO 2811-1
High Solid Content	65 -70 % secondo le modalità interne test lab (versione trasparente); 68 -75 % secondo le modalità interne test lab (versione colorata).	ASTM D 2369 EN ISO 3251
Flammability point	Non-flammable.	ASTM D 2369 EN ISO 3251
Viscosity at 25 ± 2°C	Thixotropic.	ASTM D 2196 EN ISO 3219
Dilution	Product can be diluted with clean, lukewarm, non-hard water in varying percentages depending on the type of substrate, from 5 -50%. Especially in high-temperature situations, proceed with mixing of Base and Reagent and immediate dilution with water to at least 30%. If, after 15 to 20 minutes, the product shows an increase in viscosity, subsequent mixing helps to reduce it.	13 IST 21
Mixing duration	Maximum pot-life: 1 hour at 20 ± 2°C and approx. 65 ± 10% HR.	13 IST 22 EN 9514
Drying and curing	To the touch 5 - 8 h at approx. 20 ± 2°C and approx. 50 ± 10% HR. Film hardening 3-5 days depending on ambient temperature, tendency to blister and cloud with low temperatures (< 10°C) and high R.H. (> 65%), and at high thickness.	ASTM D 1640 EN ISO 866
Covering	After 12 hours depending on temperature, no more than 20 hours. Compatibility and overpaintability, consult Technical Department.	ASTM D 1640
Consumption and Yield	(theoretical per layer) 0.080 - 0.130 kg/m ² , at the recommended thickness of 50 - 65 µm.	13 IST 03

Film Appearance	Transparent (pigmentable) or pigmented version. Glossy or opaque.	-
Number of layers	One or two layers depending on the thickness and chemical-mechanical resistance required.	-
Tool washing	1st wash with water and 2nd wash with alcohol or thinner.	-
Warehouse storage	Component A (Base): store dry in an airy place for a period not exceeding 12 months; Component B (Reagent): store dry in an airy place for a period not exceeding 6 months; Before mixing, ensure that the product has been stored in a protected environment and at a temperature below 20°C. Do not expose packages directly to the sun. Fear frost.	-

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	> 1,5
Abrasión (1Kg 1000rpm) ASTM D 4060 EN ISO 5470/1	< 68 mg
Shore Surface Hardness EN ISO 866	84 A
Elongation Break	3 ± 1%

Surface preparation

Perfectly clean the surface, which must be sound, seasoned, dry and sufficiently rough to allow for effective and long-lasting adhesion of the coating to it (special attention must be paid to sanding the underlying paintwork). Residual and/or counterthrust humidity may lead to the formation of bubbles or localised lifting.

Any imperfections or irregularities that may compromise the final aesthetic effect must be corrected by sanding and/or smoothing the substrate before applying the subsequent products.

In the presence of cracking processes and/or cracks in the substrate, carefully check the nature of these phenomena: whether they are due to plastic shrinkage, and whether they are due to tensional-structural phenomena affecting the substrate itself. In the case of both static and dynamic cracks/cracks, consult our Technical Office in order to intervene appropriately. No responsibility can fall on the product in the event that such cracking processes affect the product itself since, according to UNI EN 10966, these systems are not self-supporting.

Any traces of oil, grease, paint, efflorescence, etc. must be removed beforehand, as must any chalking or removable sections.

Before proceeding with the application of Pava Resine 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, drainage gutters and downpipes, steps and thresholds, skylights, plant pipes and through-bodies).

Application

Brush, roller, spray, airless with temperatures not below 10°C, caution with applications in environments with R.H. greater than 65% (appearance of bubbles and stickiness). On exterior surfaces particularly subject to sunlight, it is preferable to use the pigmented product Idro-gel Pava 80 or the transparent products Pavarel ECO 64 or Pavakril.

Colours and packs

Available in the transparent version in the following packages:

Base kg. 1,020 + Reag. kg. 0,200 = total kg. 1,220 B+R

Base kg. 3,820 + Reag. kg. 0,750 = total kg. 4,570 B+R

Base kg. 10,200 + Reag. kg. 2,000 = total kg. 12,200 B+R

Pigmentable with water-based colouring pastes incorporated in the base. ΔE Cielab <5.0 not binding.

Available in COLOURED version (p10) in the following packages :

Base kg. 1,140 + Reag. kg. 0,200 = total kg. 1,340 B+R

Base kg. 4,280 + Reag. kg. 0,750 = total kg. 5,030 B+R

Base kg. 11,420 + Reag. kg. 2,000 = total kg. 13,420 B+R

Available in COLOURED version (p20) in the following packages:

Base kg. 1,270 + Reag. kg. 0,200 = total kg. 1,470 B+R

Base kg. 4,740 + Reag. kg. 0,750 = total kg. 5,490 B+R

Base kg. 12,600 + Reag. kg. 2,000 = total kg. 14,600 B+R

Available in COLOURED version (p30) in the following packages:

Base kg. 1,390 + Reag. kg. 0,200 = total kg. 1,590 B+R

Base kg. 5,190 + Reag. kg. 0,750 = total kg. 5,940 B+R

Base kg. 13,860 + Reag. kg. 2,000 = total kg. 15,860 B+R

ΔE Cielab <5.0 not binding .

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 $\geq 4\%$ (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.

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.

The information contained in the technical data sheet is the most up-to-date information available to us on which we reserve the right to make any necessary changes; however, this information must be considered as having no binding force and does not prove any legal contractual relationship or accessory obligation with the purchase contract. Since the use of the product also takes place outside of our control, responsibility for the incorrect use of the product lies exclusively with the user and therefore does not imply the assumption of any of our warranties and responsibilities for the final result of the workings. Any warranty statement for effectiveness purposes requires express and specific written confirmation by Pava Resine Srl. They also do not dispense the customer from the exclusive duty and responsibility of verifying the suitability of our products for their intended use and purposes; moreover, the customer is required to verify that the values given in the data sheet are also valid for the batch of product of his interest and are not superseded and/or replaced by later editions. This data sheet cancels and replaces the previous ones. For the rest, please refer to our General Terms and Conditions of Supply, in particular also regarding liability for any defects. Our General Terms and Conditions of Supply are available on our website at www.pavaresine.com

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