

2K, semi-glossy, water-based, epoxy enamel for industrial floors and walls made of concrete and ceramic tiles. HACCP certified products with CE marking



General information

System: Two pack - 2K

Nature: Water-based

Packages: 4 kg - 16 kg

Tinting Service: Can be colored with Acquaplus 0400 Series water-based colorants

Color cards: Ral 841 GL

Technical features

2K, semi-glossy, odourless, water-based, epoxy enamel for concrete and industrial floors. The clear base can be used also as anti-dust clearcoat. The product is characterized by fast drying, excellent flow and adhesion, resistance to petrol, oils and greases, excellent flow, smooth finish, saturated appearance and excellent adhesion to cement substrate with positive results to the pull-off test necessary to identify the traction and resistance of the applied film. The product is EC certified as compliant construction product with reference to the DoP performance parameters necessary for products to be used in the construction sector. The product is compliant with the ministerial decree 236/89 relating to the BCRA method which measures the coefficient of dynamic friction in order to verify the resistance to slipperiness on the cement substrate. The product is HACCP certified according to the UNI 11021 standard relating to products and systems for painting environments with the presence, handling, distribution and storage of food.

Application field

2K, semi-glossy, water-based, epoxy enamel ideal as final coat for concrete floors, walls, ceilings and cement surfaces. The treated surface is dustproof and impermeable to oils and greases and resistant to petrol, diluted weak acids and bases. It is suitable for floors in warehouses, garages, food industries and for painting tanks, wells and artifacts in direct contact with water. This product can also be applied directly to the cement substrate as long as the pre-existing conditions of the floor are checked. In cases where the concrete surface requires the use of a suitable primer, the preliminary application of a first coat of solvent-based and water based fixative impregnating agent included in the line of products for floorings is suggested. The product is also suitable for coating tiles applied vertically on the walls. Thanks to the HACCP certification, the product is ideal for painting environments and floors used for the storage, handling, processing, dispensing, and consumption of food substances such as canteens, food industries, industrial kitchens, warehouses, food laboratories, bars, restaurants, and dairies.

*Classified in compliance with the Directive 2004/42/EC - Legislative Decree 161/06: Cat. j-BA) Two-pack performance coatings.
EU LIMIT VALUE 140 g/l (2010) - CONTENT 1 g/l*

SUBSTRATE PREPARATION

If the enamel is to be applied to objects and surfaces intended for exterior use and where an anticorrosive and passivating protection is required, a primer must be applied in advance. For this reason, the preparation of the supports is bound to the choice of the substrate. Therefore, it is necessary to refer to the primer technical data sheet both as regards the surface preparation methods and the repainting times. It is advisable to consult the technical assistance service or the commercial support in order to identify the possible primers to be applied in advance by virtue of the type of product and the surface to be coated.

- **New floor:** to carry out the work properly, it is necessary to check the water-absorption of the substrate by pouring water in order to verify the sufficient porosity to the cement surface before coating it. If the water is quickly absorbed, the substrate is in optimal condition to be coated. Otherwise the floor is not porous enough and it is necessary to proceed with the following chemical treatment: wash the floor with a mixture of 1 part of commercial muriatic acid and 9 parts of water and after the acid reaction wash with water. When the floor is completely dry, proceed with painting.
- **Already coated paint:** mechanically remove old paint, non-compliant, previously applied coats, coatings abraded by rubber and crumbly materials, clean from oils, greases.
- **Metal substrates:** the substrate must be clean, dry, degreased and free from rust and/or calamine. Before applying E-Floor Series 0245, it is necessary to apply a coat of the suitable water-based, epoxy primer Waterpox Series 0212 and after 24 hours apply the final coat.

E-FLOOR

Series 0245

APPLICATION

Application conditions

To ensure correct application, we recommend the use of a short-hair roller (specific for enamels) and/or a brush. To avoid application discrepancies, it is recommended to strictly follow the following instructions: pour the hardener (Component B) into the colored base (Component A). Mix thoroughly with a stirrer or electric mixer with rod at a speed of 300-400 rpm. Do not add fresh paint into the already mixed product. Do not rinse with water the package of the hardener. Once the hardener has been mixed with the colored component, wait 10 minutes before diluting and applying. The first coat of product must be diluted at 20% with tap water. After 12-16 hours and no later than 4 days, finish the application diluting the product at 10% with tap water. It is recommended to faithfully respect the above recommendations in order to obtain perfect uniformity of the surface and avoid problems of color and bright differences.

EQUIPMENT	VISCOSITY	NOOZLE	PRESSURE	NOTES
ROLLER AND BRUSH	-	-	-	1st coat at 20% with tap water - 2nd coat at 10% with tap water

CATALYSIS

SERIES	HARDENER	CATALYSIS	USE	POT LIFE AT 20°C	PACKAGE
L0108	HARDENER EW9	25% by weight (100 + 25)	Standard for flooring	90 minutes	1 kg - 4 kg

ENVIRONMENTAL CONDITIONS

Environment temperature 12°C - 35°C

Substrate temperature 10°C - 35°C

Relative humidity 60 %

Shelf life

1 year in original sealed containers, intact and protected from frost and excessive heat at a temperature not lower than +5°C and not higher than +30°C.

TECHNICAL DATA

Theoretical average spreading rate 3.8 m²/kg each coat at the dry film thickness of 100 µ

Application Short Hair Roller, Brush

Dilution 1st coat at 20% with tap water; 2nd coat at 10% with tap water

Gloss 50 - 60 gloss

Wet film thickness each coat 180 µ

Dry film thickness each coat 100 µ

N° of coats 2 coats till reaching the total, suitable thickness

Total dry film thickness 180 µ

Theoretical average consumption 265 g/m²

DRYING

Overcoating interval 12 hours - 4 days

Air drying 20°C

Dust-free drying -

Dry to touch -

Dry through 36 - 48 hours

Full cure 12 days

Flash off -

Stoving Drying -

Resistance to temperature 80°C

WARNINGS AND RECOMMENDATIONS

- The degree of gloss is influenced by the thickness applied and the intensity of the chosen color. The higher is the satin finish, the lower is the resistance to polishing.
- The accuracy of the color must be evaluated when the product is completely dried.
- If exposed to UV rays it tends to chalk and yellow, without losing its essential characteristics.
- After having dispensed the colorants in the neutral component, it is recommended to proceed quickly with mixing in order to avoid problems of color homogeneity.
- In accordance with the law and in order to satisfy all local and national directives, it is mandatory to send the customer the MSDS of the product and apply the legal label to be printed on the packaging using the Formulab tintometric software.
- To verify color consistency in 2K epoxy systems, the hardening and dilution of the product is recommended prior to evaluation.
- When saturated and bright colors are selected (red, orange, yellow) it is necessary to use a specific white primer.
- Shelf Life Component B: the shelf life of the hardener used with Component A is 12 months.
- The Pot Life can be influenced by the temperature. It is recommended to catalyze only the quantity of product necessary to carry out the application within and no later than 30 minutes in order to avoid exothermic reactions and the complete hardening of the catalyzed material. Increasing the temperature of the material and the substrate, the pot life time useful for the application decreases (120-150 minutes at 10°C/90-120 minutes at 20°C/30-60 minutes at 30°C). After these times the product tends to dulling.
- Do not apply the product with floor temperatures below +10°C. Check for the presence of humidity in the substrate: it must not exceed + 4%. Before coating the floor, it is advisable to carry out the test of the plastic sheet, according to Standard ASTM D 4263-83, to check for any problem caused by excessive rising humidity and/or moisture transmission/counter-thrust water.
- Walkability parameters and overcoating interval for applications on cementitious floors: at 10°C walkable in 3 days and complete film hardening after 12 days; at 20°C walkable in 2 days complete film hardening after 8 days; at 30°C walkable in 2 days and complete film hardening after 6 days. In order to obtain such performances, the coatings must be applied in compliance with the application intervals defined according to the temperature: at 10°C the interval between the first and second coat must be 24 hours; at 20°C the interval must be 12 hours; at 30°C, the interval must be 8 hours.
- The floor must have a minimum compressive strength of 25 N/mm² and a tensile strength of 1.5 N/mm².
- It is always recommended to use, especially for final coats, materials from a single production batch. Different production batches of the same color may have small differences.
- For floors subject to the parking of vehicles with new tires, it is recommended to carry out a preliminary test to exclude the formation of stains caused by the tire blend. The phenomenon is more evident with light colors.
- For anti-skid effect in compliance with the Italian Ministerial Decree 236-89 Ref. B.C.R., add component A with 5% of Antiskid additive Series 0851; mixing must be carried out with an electric stirrer with motor speed of 300-400 rpm. Then catalyse the product as indicated in the technical data sheet.
- Apply the second coat after 12 hours and not later than 4 days at 15°C and after 12 hours and not later than 3 days at 20°C.
- The full chemical resistance is reached at 20°-30°C after 10-15 days.
- The product is sensitive to direct exposure to UV rays, therefore in the event of exposure, chalking and yellowing can occur, without compromising the performance of the system.

WALKABILITY AND VEHICLE ACCESSIBILITY

TEMPERATURE °C	OVER-COATABLE AFTER	WALKABLE AFTER	VEHICLE ACCESSIBLE AFTER
+ 10 °C	24 hours	3 days	12 days
+ 20 °C	12 hours	2 days	8 days
+ 30 °C	8 hours	2 days	6 days

SUPPLY TECHNICAL DATA

Composition	Epoxy polyamide	% solid content by weight	64 ± 2%	Voc	1 ± 2 g/l
Reference color	White	% solid content by volume	44 ± 2%	Vos	0.07 ± 2%

SUPPLY TECHNICAL DATA

	GLOSS	VISCOSITY	SPECIFIC WEIGHT
TEST METHOD	ISCOL 6	ISCOL 1	ISCOL 2
DATA	50 - 60 gloss 60°	5000 - 6000 mPa.s (20°C) Rod 4 Speed 20	1.4 - 1.6 g/ml

MIXING RATIO A+B

Specific weight after catalysis (a+b)	1.46 ± 0,05 g/ml	% solid content by weight (a+b)	72 ± 2%	Voc (a+b)	0.8 ± 2 g/ml
		% solid content by volume (a+b)	55 ± 2%	Vos (a+b)	0.05 ± 2%
L0108					
A+B BY WEIGHT	100 + 25				
A+B BY VOLUME	100 + 35				

TINTING SERVICE

BASE	BASE PACKAGING	COLORED PACKAGING	% MIXING RATIO
BINDER	3.6 kg	4 kg	90 - 10
	14.4 kg	16 kg	
WHITE BASE	3.8 kg	4 kg	95 - 5
	15.2 kg	16 kg	

CERTIFICATIONS



EC Marking

Surface protection systems for concrete
UNI EN 1504-2:2005



HACCP
Hazard analysis and critical control points

HACCP Principles
EC Regulation n. 178/2002
EC Regulation n. 852/2004



BCRA
Determination of slipperiness

Slip resistance test - British Ceramic
Research Association method
Ministeria Decree n. 236 dtd
14th June 1989
BCRA reference method

NOTES

Cleaning tools:

At the end of the work, be sure to thoroughly clean the tools (spray guns, painting systems, containers) with tap water. As the product is water-based and fast drying, if washing with water is not sufficiently effective, proceed with a final washing using a limited quantity of suitable solvent in order to remove the product from the equipment used.

Sanitary labelling:

Handle the products with care and always consult the material safety data sheets in order to comply with current safety and environmental regulations

Additional notes:

- The spreading rates indicated are to be considered theoretical as they do not take into account the application systems and color.
- What is reported in this technical data sheet is obtained through the exclusive use of Damiani products (paints, hardeners, thinners) applied according to the specifications indicated. The use of materials from other companies in mixed systems with Damiani products can compromise the performance of the applied coating systems. By virtue of this, the company does not guarantee the final result.
- The times related to pot life and drying intervals refer to a standard temperature of 20°C, except in cases where it is expressly indicated.
- Please note that the degree of gloss indicated and tested may vary during the application phase as it can be influenced by the following factors: color achieved, thicknesses applied, coats applied, environmental conditions, thinner used, hardeners other than that established in the technical data sheet.
- The data relating to the A+B mixing ratio section are to be considered with reference only to the first recommended hardener.
- The spreading rates are theoretical, indicative and intended per coat as they can be influenced by the color and the application system. Practical application test is suggested.
- Pot Life times have been defined at the temperature of 20°C, therefore higher or lower temperatures, hardeners, environmental conditions and humidity different from the standard can influence in defect or in excess the duration of the Pot Life.

All the data of the document have been verified and can be considered reliable. The responsibility for the use of the product to be applied remains with the user in compliance with what is indicated in the technical data sheet. Any use of the product that differs from what is indicated in the technical data sheet concerning the parameters of preparation of the product, of the substrate, of drying and applications or that is outside the provisions of the recommended coating systems and of the preparations of suitable surfaces, must be considered attributable to the user and therefore exempts the manufacturer from any and all liability and/or guarantee. The user must in any case check and verify the suitability of the selected products according to the specific, intended use. For any information regarding the coating system, the application conditions and the technical features of the products, it is advisable to contact the technical assistance service of the Damiani laboratory. It should be noted that the packaging image could have a placeholder purpose and could therefore constitute an indicative reference. The packages indicated may vary according to the additions or changes of the annual price lists. This document replaces all previous versions. In any case, to better understand the parameters of the technical data sheet, it is advisable to refer to the annexes of the explanatory notes. The updated version of the following technical data sheet available in the specific section on the website www.color-damiani.com is to be considered the only one binding.

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