FOSFACRYL SEMI-GLOSSY

Series 0161

2K, DTM, semi-glossy, polyacrylic enamel

General information

System: Two pack - 2K

Nature: Solvent-based

Packages: 4 kg - 20 kg

Tinting Service: Can be colored with solvent-based colorants Unisol Pro Series 0200

Suitable Substrates: Iron, Cast iron, Galvanized surfaces, Light alloys, Aluminum, Thermoplastics (abs, pvc, pc), Fiberglass and Thermosetting plastics, Cement, Sandblasted Iron - Sandblasting Sa 1-2, Sandblasted Iron - Sandblasting Sa 2,5-3, Hot-dip galvanization

Color cards: Ral 841 GL, Ncs 1950, Color Box, 1040 1040 Pro-Carrozzeria

Technical features

2K, DTM, polyacrylic anticorrosive enamel with very good adhesion and suitable for direct application to iron and galvanized steel. The coating has a semi-glossy finish and it is highly resistant to water, chemical and atmospheric agents. The product is suitable also as dust-repellent treatment for indoor and outdoor floors with a decorative effect; it can be used for floors subjected to pedestrian passage and light traffic with forklifts and trolleys with rubber wheels. The product was tested according to 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.

Application field

Polyacrylic enamel suitable as DTM, semi-glossy primer and final coat with good anticorrosive properties for metal supports when short coating time is requested. The product is ideal for robots, industrial automation systems, parts and components of the ACE sector when high productivity and fast handling of the coated substrates are required. It can also be applied on outdoor concrete floors.

SUBSTRATE PREPARATION

The pre-treatment phase of the surfaces to be carried out prior to the application of the coating system is to be considered as the decisive phase to guarantee the effectiveness of the performance of the coating products. In fact, before applying the coatings it is necessary to optimally clean the surface, making it suitable for the application of the coating system. It is also recommended that the surface must be dry, clean, degreased and free of rust, as well as any loosing parts of old paint. In any case, and where strictly necessary and for the purposes of carrying out a workmanlike operation, it is advisable to contact technical assistance or to consult the explanatory notes attached to the technical data sheet. These annexes indicate the different types of pre-treatment by virtue of the surface to be treated and subsequently painted. Among the main methods are listed those which have more or less influence, depending on the state of the support and the final result to be achieved. In the document are listed both surface activities such as degreasing, manual cleaning and mechanical purification with appropriate equipment,operations such as scraping, sanding, tapping, brushing, and more "invasive" procedures such as light or accurate sandblasting, shot blasting, shot peening and wet sandblasting (or hydro sandblasting).

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APPLICATION

Application conditions

The application of the product can be influenced by environmental conditions (including humidity and temperature), by the conformation of the product to be treated and by the thicknesses to be applied. It is necessary to pay particular attention to the type of application system as the different layouts and the different structural conditions of the application systems can affect the final result in a variable manner depending on the case and intervene on fundamental technical parameters such as: the transfer efficiency of the coating product, the overspray, the aesthetic appearance obtained, the sagging stability of the product and the ease or complexity of application. In this regard, it is advisable to contact the technical assistance department, when requested, to carry out the necessary surveys and consultancy in the event that applications on complex structures are to be carried out.

EQUIPMENT	VISCOSITY	NOOZLE	PRESSURE	NOTES
AIRBRUSH - CUP GUN	25'' - 45'' Ford Cup 4	1.4 - 1.7 mm	3.5 - 4 bar	-
AIRMIX	Depending on the application criteria	11 - 13	60 - 100 bar	-
ROLLER AND BRUSH	-	-	-	Dilution at 5% with Slow Thinner for Acrylics Series D0020
ELECTROSTATIC	-	-	-	Keep in touch with the technical support to choose the suitable antistatic additive

CATALYSIS

SERIES	HARDENER	CATALYSIS	USE	POT LIFE AT 20°C	PACKAGE
L0025	HARDENER PS5	20% by weight (100 + 20)	Slow, non yellowing for outdoor use	6 hours	1 l - 5 l
L0065	HARDENER PS7	25% by weight (100 + 25)	Fast, non yellowing for outdoor use	6 hours	0.5 l - 1 l - 5 l
1392	HS PLUS 420 HARDENER	15% by weight (100 + 15) or 4 : 1 by volume	For catalysis by volume and for roller applications on concrete	3 hours	1 l - 2.5 l - 5 l

ENVIRONMENTAL CONDITIONS

Environment temperature	*5°C - 35°C*
Relative humidity	*60 %*
Substrate temperature	*5°C - 35°C*
Shelf life	*2 years 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	*6 m²/kg each coat at the dry film thickness of 60 µ*	**Application**	*Spray, Roller, Brush*	**Dilution**	*5-10% with Slow Thinner for Acrylics Series D0020*
Gloss	*50 - 60 gloss*	**Wet film thickness each coat**	*130 µ*	**Dry film thickness each coat**	*60 µ*
N° of coats	*1 or 2 coats till reaching the total, suitable thickness*	**Total dry film thickness**	*100 µ*	**Theoretical average consumption**	*165 g/m²*

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DRYING

Overcoating interval	*4 - 96 hours (after it is necessary to sand)*	**Air drying**	*20°C - 25°C*	**Dust-free drying**	*10 - 15 minutes*
Dry to touch	*30 - 40 minutes*	**Dry through**	*1 - 2 days*	**Full cure**	*14 days*
Flash off	*5 - 10 minutes at 20°C*	**Stoving Drying**	*30 minutes at 50°C - 60°C*	**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.
- As the product has anticorrosive features and is suitable for direct applications to metal, it does not require the application of a first anticorrosive primer.
- As the polyurethane systems are sensitive to the presence of solvents containing moisture or partially reactive, the use of nitro thinners for the application is not recommended. The use of these thinners can generate pitting phenomena, alteration of the color tone and reduction of the mechanical features of the system.
- The product has a poor resistance to solvents in general, so even the short time contact can generate defects.
- The product is suitable for direct application on metals in general and in the presence of not excessively shiny galvanized products.
- The accuracy of the color must be evaluated when the product is completely dried.
- After having dispensed the colorants in the binder 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 on the packaging the legal label to be printed using the Formulab tinting software.
- When saturated and bright colors are selected for direct to metal products (reds, oranges, yellows) it is necessary to apply two coats of 100 µ w.f.t. of the product to check the color match.
- Shelf Life Component B: the shelf life of the hardener used with Component A is 12 months.
- The product is suitable for smooth cementitious floors both new or already painted. The coated surface is easy to clean, anti-dust and with moderate mechanical resistance; considering that it is a thin film thickness system < 300 micron, the perfect waterproofing of the system and the chemical resistance cannot be granted. The preparation of the substrate, which must be perfectly cured (over 4 months), requests the treatments of sanding or smoothing, the removal of any 1K, old paints and of peeling and flaking parts. If it is not possible to carry out the above-described treatment, carefully wash the floor with an acid solution composed of 1 part of muriatic acid and 9 parts of water, leave to act until complete reaction and rinse abundantly with water. Wait for the complete drying of the surface to be treated, before coating it.
- The coating system for concrete floors requires the application of a first coat of the solvent-based fixative impregnating agent Ancor-Fix Series 8231 or water based fixative AquaFixer Series 8200 as required by the Damiani range of products for floors. 12 hours after impregnating the cement substrate, apply two coats of the product, catalyzed at 15% by weight with HS Plus 420 Hardener Series 1392, spaced out by at least 8 hours. For the cleaning and the routine maintenance, it is recommended to use suitable detergents and to always carry out a preventive compatibility test between the detergent and the applied paint.
- To obtain an 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; the mixing must be carried out with an electric stirrer with motor speed at 300-400 rpm. Then catalyze the product following the instructions of the technical data sheet.
- For short hair roller applications, it is recommended to use the HS Plus 420 Hardener Series 1392 with catalysis ratio by weight 100 + 15.
- The product can be applied by roller and brush only on small areas and parts of the product to be coated, for maintenance purposes and in case of moderate needs and expectations in relation to the the final aesthetic finish.
- Walkability parameters and overcoating interval for applications on cementitious floors: at 10°C walkable in 3 days and complete film hardening after 10 days; at 20°C walkable in 2 days complete film hardening after 7 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 20 hours; at 20°C the interval must be 8 hours; at 30°C, the interval must be 6 hours.
- Apply the second coat after 8 hours and not later than 3 days at temperatures of 20°C.
- 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.
- The full chemical resistance is reached at 20°-30°C after 10-15 days.

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WALKABILITY AND VEHICLE ACCESSIBILITY

TEMPERATURE °C	OVER-COATABLE AFTER	WALKABLE AFTER	VEHICLE ACCESSIBLE AFTER
+ 10 °C	*20 hours*	*3 days*	*10 days*
+ 20 °C	*8 hours*	*2 days*	*7 days*
+ 30 °C	*6 hours*	*2 days*	*6 days*

SUPPLY TECHNICAL DATA

Composition	*Modified acrylic*	**% solid content by weight**	*61.8 ± 2%*	**Voc**	*497 ± 2 g/l*
Reference color	*White*	**% solid content by volume**	*43.4 ± 2%*	**Vos**	*38 ± 2%*

	GLOSS	SPECIFIC WEIGHT	VISCOSITY
TEST METHOD	ISCOL 6	ISCOL 2	ISCOL 1
DATA	50 - 60 gloss 60°	1.15 - 1.2 g/ml	1500 - 2000 mPa.s (20°C) Rod 3 Speed 50

MIXING RATIO A+B

Specific weight after catalysis (a+b)	*1.25 ± 0.05 g/ml*	**% solid content by weight (a+b)**	*60 ± 2%*	**Voc (a+b)**	*482.7 ± 2 g/l*
		% solid content by volume (a+b)	*53 ± 2%*	**Vos (a+b)**	*38.4 ± 2%*

	L0025	L0065	1392
A+B BY WEIGHT	100 + 20	100 + 25	100 + 15
A+B BY VOLUME	100 + 25	100 + 33	4 : 1

TINTING SERVICE

BASE	BASE PACKAGING	COLORED PACKAGING	% MIXING RATIO
BINDER	3 kg	4 kg	75 - 25
	15 kg	20 kg	
WHITE BASE	3.8 kg	4 kg	95 - 5
	19 kg	20 kg	

CERTIFICATIONS

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 application, carefully clean the tools (spray guns, painting systems/plants, containers) with a specific thinner suitable for the product. Store all equipment once the drying period is complete.

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 information reported in this technical data sheet is obtained through the exclusive use of Damiani products (paints, hardeners, thinners) applied according to the indicated specifications. The use of products from other companies in mixed coating systems with Damiani products can compromise the performance of the applied coating system. By virtue of this, the company does not guarantee the final result.
- 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.

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