

METAKRYL SEMI-GLOSSY DTM UHS

Series 1269

DTM, HS, semi-glossy, acryl polyurethane enamel for metal, light alloys and galvanized steel



TECHNICAL FEATURES

Semi-glossy UHS (Ultra High Solid 420 g/l if hardened with Series 1392) direct to metal enamel for metal, light alloys and galvanized steel. Product formulated with particular hydroxylated acrylic resins and aliphatic polyisocyanates. The presence of special corrosion inhibitors gives the product high anticorrosive resistance. Enamel particularly characterized by excellent outdoor resistance, good anticorrosive power on iron and excellent adhesion on galvanized steel. Particularly versatile product for use on different substrates, from metals, to glass (with suitable adhesion promoting additive), plastics.

APPLICATION FIELD

Suitable as a base coat with a semi-glossy finish with good anticorrosive power for metal substrates in those cases in which it is intended to shorten painting times. It is ideal for painting robotics, industrial automation, parts and components of the Ace sector where high productivity and speed of handling of the painted products are required. Depending on the type of dilution and equipment, a fine textured finish effect can also be obtained by using suitable nozzles.

GENERAL INFORMATION

System: Two pack - 2K

Nature: Solvent-based

Packages: 3,5 kg - 20 kg

Tinting Service: Tinting service with solvent-based colorants Series 0615

Suitable Substrates: Iron, Cast iron, Galvanized surfaces, Light alloys, Thermoplastics (ABS, PVC, PC), Fiberglass and Thermosetting plastics, Glass, Sandblasted Iron - Sandblasting Sa 1-2, Sandblasted Iron - Sandblasting Sa 2,5-3, Hot-dip galvanization

Color fans and color cards: Ral 841 GL, Ral Design, Ncs 1950, ColoradoMix 1040, Colorado Box 2.0

SUBSTRATE PREPARATION

The surface pre-treatment process, to be carried out prior to the application of the coating product, is of considerable importance in order to obtain and guarantee optimal and long-lasting results and performance over time. The substrate must be perfectly clean, dry, degreased and free from rust and/or calamine. It is also advisable to make sure that the substrate is free from particles and other paints that are not perfectly adherent or incompatible with the coating of paint that will be applied. For the purpose of a correct and complete preparation, it is recommended to consult, where necessary, the explanatory notes attached to the technical data sheet, the painting manual and the technical assistance service of the Research & Development Laboratory. The explanatory notes, specifically, depending on the type of surface and the result to be obtained, indicate different pre-treatment methods such as degreasing, manual and mechanical cleaning using special equipment, mechanical preparations (scraping, sanding, tapping, brushing), light or accurate sandblasting, shot blasting, shot peening and wet sandblasting (or hydro sandblasting).

APPLICATION

Application conditions

The application of the coating product is subject to various factors such as environmental conditions (among which it is necessary to mention temperature, humidity and ventilation), geometry and laboriousness of the products to be painted, surface profiles and thicknesses to be applied. The application system to be used is of particular importance as, depending on the type of system, various parameters may vary including 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. For these reasons, prior to applications on systems and lines of considerable scope, it is advisable to contact the technical assistance service in order to carry out the inspection and the necessary surveys for a consultancy activity relating to the application methods and the definition of ad hoc technical details on the plant in question.

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 application parameters	11 - 13	60 - 100 bar	-
ROLLER AND BRUSH	-	-	-	Dilution at 5% with PUR Thinner Series 0988

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EQUIPMENT	VISCOSITY	NOOZLE	PRESSURE	NOTES
ELECTROSTATIC	-	-	-	Contact technical assistance to decide the suitable antistatic additive

CATALYSIS

SERIES	HARDENER	CATALYSIS	USE	POT LIFE AT 20°C	PACKAGE
0929	PUR ALIPHATIC HARDENER	15% by weight (100 + 15)	Non yellowing for exterior use	6 hours	0,5 kg - 2 kg
1392	HS PLUS 420 HARDENER	10% by weight (100 + 10) or 10:1 by volume	For 420 g/l VOC applications	6 hours	1 l

ENVIRONMENTAL CONDITIONS



ENVIRONMENT TEMPERATURE

5°C - 35°C



SUBSTRATE TEMPERATURE

5°C - 35°C



RELATIVE HUMIDITY

60 %



SHELF LIFE

Store 2 years in original sealed packaging at +5/+35°C.

TECHNICAL DATA



THEORETICAL AVERAGE SPREADING RATE	APPLICATION	DILUTION	GLOSS	WET FILM THICKNESS EACH COAT	DRY FILM THICKNESS EACH COAT	N° OF COATS	TOTAL DRY FILM THICKNESS	THEORETICAL AVERAGE CONSUMPTION
11,5 m ² /kg each coat at the dry film thickness of 40 µ	Spray, Brush, Roller	5% with PUR Thinner Series 0988	40 - 50 gloss	67 µ	40 µ	1 or 2 coats to achieve the total desired thickness	90 µ	86 g/m ²

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DRYING



OVERCOATING INTERVAL	AIR DRYING	DUST-FREE DRYING	DRY TO TOUCH	DRY THROUGH	FULL CURE	FLASH OFF	STOVING DRYING	RESISTANCE TO TEMPERATURE
4 - 96 hours (after it is necessary to sand)	20°C	20 - 30 minutes	1 - 2 hours	24 - 36 hours	14 days	5 - 10 minutes at 20°C	30 minutes at 50°C - 60°C	80°C continuous exposure

WARNINGS AND RECOMMENDATIONS

- Being a direct to metal product, it does not require the application of a suitable primer.
- The degree of gloss can be influenced by the chosen color and the thickness applied. Unlike glossy final coat, resistance to scratching and polishing is lower.
- The use of nitro thinners for the application of polyurethane coating systems can create pitting phenomena on the surface of the dried film. Furthermore, the presence of partially reactive solvents can give rise to undesired reactions, reducing the aesthetic and mechanical features of the system. The choice of unsuitable regenerated thinners can create problems of color change, product sedimentation and less effectiveness in reducing viscosity.
- The product is limitedly resistant to solvents generally intended as temporary contact limited in time.
- The product can be applied directly, without the aid of a primer, only in the presence of not extremely shiny and new galvanized steel.
- The color match is evaluated after the application and drying of the product. It is recommended to carry out practical tests, such as spreading or applying the colored product on small surfaces made of suitable material, before proceeding with the product painting.
- After having colored the product with the suitable colorants, mix it in a short time.
- In order not to incur financial penalties, after having colored a product with tinting machine, send the MSDS and apply the appropriate legal labelling printable using the Databook P&C tinting software.
- For DTM, one coat, low opacity colored products (yellow, orange, red), to check the shade, apply two coats of 100 μ w.f.t. of the product.
- Shelf Life Component B: the shelf life of the hardener used with Component A is 12 months.
- If catalyzed with the Hs Plus 420 Hardener Series 1392, the product complies with directive 2004/42/CE - Dlg.161/06 (content 420 g/l) and can be applied by roller and brush.
- Application by roller and brush cannot be carried out at high temperature or with direct exposure to sunlight.
- 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.

SUPPLY TECHNICAL DATA

Composition: Hydroxylated acrylic

Reference color: White

% solid content by weight: 76 $\pm$ 2%

% solid content by volume: 64 $\pm$ 2%

VOC: 320 $\pm$ 2 g/l

VOS: 24 $\pm$ 2%

PARAMETER	DATA	TEST METHOD
SPECIFIC WEIGHT	1,06 - 1,3 g/ml	ISCOL 2
VISCOSITY	2250 - 2500 mPa.s (20°C) Rod 3 Speed 20	ISCOL 1
GLOSS	40 - 50 gloss 60°	ISCOL 6

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MIXING RATIO A+B

Specific weight after catalysis (A+B): $1,28 \pm 0,05$ g/ml
 % solid content by weight (A+B): $71 \pm 2\%$
 % solid content by volume (A+B): $59 \pm 2\%$
 VOC (A+B): 370 ± 2 g/l
 VOS (A+B): $29 \pm 2\%$

METHOD	0929	1392
A+B BY WEIGHT	100 + 15	100 + 10
A+B BY VOLUME	100 + 20	10:1

TINTING SERVICE

BASE	BASE PACKAGING	COLORED PACKAGING	% MIXING RATIO
BINDER	2,8 kg 16 kg	3,5 kg 20 kg	80 - 20
WHITE BASE	19 kg	20 kg	95 - 5

NOTES

Cleaning tools: At the end of the application, carefully wash the spray guns, the painting systems and the containers with a suitable thinner and store the tools dry to avoid encrustations.

Sanitary labelling: Handle the product with care. Make reference to the MSDS and respect the national and local regulations in force concerning personal and environmental safety.

Additional notes:

- The data reported in this data sheet have been obtained using only Franchi&Kim production materials (coatings, hardeners, thinners) applied in accordance with the specifications described. The improper use of thinners and/or hardeners, different from those suggested or not manufactured by Franchi & Kim, can compromise application features, performances and final curing of the product. Therefore, in case of mixed coating systems with Franchi & Kim and other brand products, the conformity of the results with the parameters indicated in the technical data sheet cannot be granted.
- The times related to pot life and drying intervals refer to a standard temperature of 20°C, except when it is expressly indicated.
- The gloss indicated and tested may change during the application phase because it can be influenced by the following factors: realized color, thickness, number of coats, environmental conditions, thinner and hardener used if different from those listed in the technical data sheet.
- The data relating to section mixing ratio A+B are to be considered referring only to the first recommended catalyst.
- 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.

The information contained in this technical document is correct and accurate to the best of our knowledge, and should therefore be considered reliable. In any case, they cannot imply a guarantee on our part, as certain factors such as the preparation of the product and the substrate, the conditions of use, application, drying and overcoating, as well as the state of conservation of the products, are outside our strict control. It is responsibility of the user to verify the suitability of the products for the specific use, as well as the correct and precise execution of the work in accordance with the content of the technical data sheet, the recommended coating system and preparation of the support. For further information regarding the method of application and conditions of use, it is recommended to contact our technical support service. It should be noted that the packaging image could have a placeholder purpose and could therefore be 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, it is advisable to refer to the annexes with the explanatory notes to better understand and deepen the parameters of the technical data sheet. The updated edition, available on the website www.franchi-kim.com in the section technical data sheets of the download area is to be considered the only ones to consult as reference.

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