

TECHNICAL DATA SHEET

Date of issue: 26.01.2009

Last updating: n°3 10.02.2017



Name:	ACRYLAC INDUSTRIAL DTM ENAMEL	Category two pack high performance Alj product
Definition:	Industrial acrylic 2K enamel	V.O.C. ready to use: 500 g/l V.O.C. limit: 500 g/l
Code:	62.4	Product according to 2004/42/CE

NATURE OF THE PRODUCT

Two-pack acryl-urethane topcoat, based on hydroxylated acrylic resins and aliphatic isocyanic adduct to mix before use.

GENERAL USES

Product for general use, furniture, machines tools, coach work, industrial applications, marine sector, industrial finishes, concrete coatings, doors and windows frames, plastics, etc.

Suitable for direct adhesion applications on metals and plastics. Considering the variety of commercially available materials, we strongly recommend doing preliminary tests¹. To improve the adhesion on metal we suggest acid washing with our 07.044 thinner and diluting the product with the same thinner.

If special yellowing and weathering resistances are required, we recommend using the anti-UV additive 03.007, at 1.5-3% (calculated by weight on the product without hardener).

APPLICATION METHOD

PREPARATION OF SURFACES

The cleaning of the application surface should be total and painstaking and it is a fundamental and necessary condition to obtain positive result of the painting cycle.

The product shows direct adhesion on metals² without a previous primer application. Because of the big variety of substrates is always better to perform some preliminary tests before.

- Ferrous surfaces: SA2 1/2 sandblasting or perfect mechanical cleaning of the substrate by sanding to remove rust and calamine, followed by degreasing with surfactants aqueous solutions or organic solvents.
- Galvanized sheet: accurate sanding by using scotch brite coarse grain, then degreasing with solvents. Otherwise, accurate degreasing with our thinner 07.115 or 07.044, and final cleaning with silicone remover 07.051. The use of acidic thinners such as 07.044, slow, and 07.115, quick, improve greatly the adhesion performance on this surface.
- Aluminium: Accurate sanding followed by careful degreasing with our thinner 07.115 or 07.044, and final cleaning with silicone remover 07.051. When it is not possible to sand the surface, the use of acids thinners such as 07.044, slow, and 07.115, quick, improves greatly the adhesion performance on this surface. For this application we suggest using the additive 03.040 (3% to 5% by weight in the product without hardener, an excess can give a slight haze in the gloss colours). Nevertheless, we suggest testing the adhesion on a sample before proceeding with large applications.
- Plastics³: elimination of any molding release agents. Sanding with brown scotch brite followed by accurate degreasing with suitable solvents. We suggest testing the adhesion on a test sample before proceeding with large applications.

If conditions require the use of a primer, we recommend: Acrydur 69.3 series, Epofix 29.3 series, Basic 2 69.4 series. Follow the surface preparation instructions given in the TDS of the selected primer.

¹ To improve the adhesion on metal we recommended using the additive 03.040 at 3-5% (calculated by weight on the product without hardener, an excess can give a slight haze in the gloss colours).

² If it is necessary to improve the corrosion resistance of the painted artefact, we suggest to apply a primer.

³ Considering the big variety of plastics, we recommend performing some preliminary tests.

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PREPARATION OF THE PRODUCT

	code	name	By Weight	By Volume
Component A	62.4	DTM ind. acrylic enamel, matt	100 part	100 part
Component B	01.014	Polirex NI	20 part	25 part

Carefully mix until an even colour and consistency are obtained. Dilute with our polyurethane thinner 07.013 in a percent of 5-10% (at temperatures over 25°C use slow thinner 07.030 and also slow hardener 01.012) to obtain a viscosity of 20"-25" Ford 4 at 20°C.

APPLICATION

Spray gun: nozzles of 1,4-1,7 mm. diameter and 3-5 atm. pressure.

Airless. nozzle 0,09 inches, 180/240 bar

Roller or brush⁴: only for large surfaces

TECHNICAL DATA

PRODUCT TYPE: Two pack product

FILM APPEARANCE (ASTM D 523): Matt, 20±5 gloss (60°C angle)

COLOURS: By request (the binder 62.4.K1 has to be used in a ratio 80/20 with the tintometric system tinters)

SPECIFIC WEIGHT (ISO 2811): 1,24 g/cm³ (±0,07)

SUPPLY VISCOSITY (20°): 3000-5000 CPs, for component A only

SOLID ON VOLUME: A+B 50% (±3%)

SOLIDS CONTENT: A+B 60% (± 3%).

DRYING AT 20°C

- Dust dry: 20-30'
- Touch dry: 2-4 hours
- Total hardening : 24 ours
- Forced drying 30' at 60°C
- Maximum chemical resistance: After 7 days

RECOMMENDED COATS: One or two crossed coats

THICKNESS⁵: 60-90 µm

THEORETIC YIELD⁶: 6-8 m²/kg

POT-LIFE AT 20° C: 4 hours at temperature of 20° C. At higher temperatures, pot-life decreases

⁴ You may need Antifoam additive 03.009 in order to avoid bubble formation whilst using these tools

⁵ Considering a dry film.

⁶ The theoretical yield has been calculated for the thickness suggested and over plane and regular surfaces.

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SALT SPRAY TEST (ASTM B 117): If applied on a cycle with primer and topcoat with a final dried film thickness of 140 µm, 500 hours. For 80µm dried film thickness applied DTM on sanded iron, 200 hours

ADHESION (ASTM D 3359): B=5 on iron, aluminium, galvanised sheet previously sanded.

IMPACT TEST (ASTM D 2794): 36 kg direct 36 kg reverse

YELLOWING (ASTM D 4587): after 500 hours, ΔE<4

CHEM. RESIST .⁷ (UNI EN ISO 12720):

HCl solut. 10%	vote 4	7 days
HNO ₃ solut. 10%	vote 2	7 days
H ₂ SO ₄ solut. 10%	vote 4	7 days
Acetic acid solut. 10%	vote 3-2	7 days
Mix of NaCl 10%, Lactic acid 5%	vote 5-4	7 days
Synthetic sweat	vote 5	7 days
H ₂ O ₂ 35%	vote 1	4 days
NH ₃ solut. 30%	vote 5	7 days
NaOH solut. 10%	vote 3-2	7 days
Acetone	vote 5	7 days
Cyclohexanone	vote 1	1 days
Solvesso 100	vote 5	7 days
Ethyl acetate	vote 4-3	7 days
Ethanol	vote 5	7 days
Synthetic oil	vote 5	7 days
Idraulic oil	vote 5	7 days
Transmission oil SAE 30	vote 5	7 days
Engine oil 15W40	vote 5	7 days
Viakal	vote 5	7 days
Unleaded gasoline	vote 5	7 days

REPAINTING: Wet on wet (within 15') or after maximum 6 hours. After complete hardening of the film, it is better a light sanding before over-coating.

STORAGE STABILITY: One year for A component, 6 months for B component in closed packs, in a cool, dry place, away from any sources of heat.

⁷ The quality of chemical resistance goes from a value of 5 (means optimum) to 1 (means not good). For further information, please contact Siro's technical service.