

# TECHNICAL DATA SHEET

Date of issue: 26.01.2009

Last updating: n°6 10.02.2017



|                    |                                              |                                                        |
|--------------------|----------------------------------------------|--------------------------------------------------------|
| <b>Name:</b>       | <b>ACRYLAC, INDUSTRIAL DTM ENAMEL, GLOSS</b> | <b>Category: two pack high performance A/j product</b> |
| <b>Definition:</b> | <b>Industrial acrylic 2K enamel</b>          | <b>V.O.C. ready to use: 500 g/l</b>                    |
| <b>Code:</b>       | <b>62.1</b>                                  | <b>V.O.C. limit: 500 g/l</b>                           |
|                    |                                              | <b>Product according to 2004/42/CE</b>                 |

## 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 tests<sup>1</sup>. 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 metals<sup>2</sup> 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.
- Plastics<sup>3</sup>: 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.

<sup>1</sup> 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).

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

<sup>3</sup> 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 | 62.1   | Glossy DTM ind. acrylic enamel | 100 part  | 100 part  |
| Component B | 01.014 | Polirex NI                     | 25 part   | 30 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.

Roller or brush<sup>4</sup>: only for large surfaces

## TECHNICAL DATA

**PRODUCT TYPE:** Two pack product

**FILM APPEARANCE (ASTM D 523):** Gloss, > 85 gloss (60° angle)  
If used in the formulation of metallic colours, the gloss drops to 80/70 depending on the quantity of aluminium tinter used.

**COLOURS:** By request (the binder 62.1.K1 has to be used in a ratio 70/30 with the tintometric system tinters)

**SPECIFIC WEIGHT (ISO 2811):** 1,23 g/cm<sup>3</sup> (±0,07)

**SUPPLY VISCOSITY (DIN 53211):** 12" Ford 8 at 25° C. (±3) for component A

**SOLID ON VOLUME:** A+B 50% (±3%)

**SOLIDS CONTENT:** A+B 60% (± 3%).

**DRYING AT 20°C**

- Dust dry: 20-30'
- Touch dry: 4-6 hours
- Total hardening : 24 ours
- Forced drying 30' at 60°C
- Maximum chemical resistance: After 7 days

**RECOMMENDED COATS:** One or two crossed coats

**THICKNESS<sup>5</sup>:** 60-90 µm

**THEORETIC YIELD<sup>6</sup>:** 8 m<sup>2</sup>/kg

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

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

<sup>5</sup> Considering a dry film.

<sup>6</sup> 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 70µm dried film thickness applied DTM on sanded iron, 250 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,  $\Delta E < 4$

**HEAT RESISTANCE:** The film of paint, once cured, resist untill 180°C

**CHEM. RESIST .<sup>7</sup> (UNI EN ISO 12720):**

|                                           |      |     |        |
|-------------------------------------------|------|-----|--------|
| HCl solut. 10%                            | vote | 4   | 7 days |
| HNO <sub>3</sub> solut. 10%               | vote | 2   | 7 days |
| H <sub>2</sub> SO <sub>4</sub> solut. 10% | vote | 4   | 7 days |
| Acetic acid solut. 10%                    | vote | 5-4 | 7 days |
| Mix of NaCl 10%, Lactic acid 5%           | vote | 5-4 | 7 days |
| Synthetic sweat                           | vote | 5   | 7 days |
| H <sub>2</sub> O <sub>2</sub> 35%         | vote | 1   | 4 days |
| NH <sub>3</sub> solut. 30%                | vote | 5   | 7 days |
| NaOH solut. 10%                           | vote | 5   | 7 days |
| Acetone                                   | vote | 4-3 | 7 days |
| Cyclohexanone                             | vote | 1   | 1 days |
| Solvesso 100                              | vote | 4-3 | 7 days |
| Ethyl acetate                             | vote | 4-3 | 7 days |
| Ethanol                                   | vote | 4-3 | 7 days |
| Synthetic oil                             | vote | 4   | 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 minimum 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.

<sup>7</sup> 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.