

TECHNICAL DATA SHEET

Date of issue: 23.04.2003

Last updating: n°4 21.10.2016



Name:	ACRYLAC, GLOSS	Category: 2K high performance Alj enamel
Definition:	Two-pack acrylic enamel	V.O.C. ready to use: 500 g/l
Code:	60.1	V.O.C. limit: 500 g/l
Product according to 2004/42/CE		

NATURE OF THE PRODUCT

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

GENERAL USES

Product for high quality applications on machines tools, operating and agricultural machines, furniture and plastics.

Suitable for use with direct adhesion 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 resistance to and to exposure to atmospheric agents is 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.

This means that the presence of grease, oils, dirty, rust and calamine on the surfaces is absolutely not allowed.

- **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, especially if, contrary to what is specified above, it has been sanded short before.
- **Aluminum:** 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.
- **Plastics²:** 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 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	60.1	Acrylac enamel, gloss	100 part	100 part
Component B	01.014	Polirex NI	33 parts	35 parts
As an alternative	01.012	Polirex NI slow	33 parts	35 parts

Carefully mix until an even colour and consistency are obtained. Dilute with our polyurethane thinner 07.013 in a percent of 15-20% to obtain a viscosity of 18-23" Ford 4 (at temperatures over 25°C use 07.030 thinner and also 01.012 hardner to avoid blistering formation due to high ambient temperature).

APPLICATION

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

Electrostatic spray gun: suitable

Roller or brush³: only for large surfaces

TECHNICAL DATA

PRODUCT TYPE: Two pack product

FILM APPEARANCE (ASTM D 523): Glossy, 90±5 gloss

COLOURS: On request, (the binder 60.1.K1 must be used in a binder/tinters ratio of 70/30 with the tintometric system tinters).
The 60.1.90130 version, acrylic glossy white, applied on epoxy primer 29.3 tested following the CE N. 1932/2004 for water and food contact approval, passed all the tests, so the product, only in this version, is suitable for food and drinkable water contact.

SPECIFIC WEIGHT (ISO 2811): 1,15 kg/L (±0,10 A+B)

SUPPLY VISCOSITY (DIN 53211): 15" ± 3" Ford 8

SOLID ON VOLUME: A+B 44% (±2%)

SOLIDS CONTENT: A + B 50% (± 3%).

DRYING AT 20°C

- Dust dry: 15-20 minutes
- Touch dry: 2 hours
- Total hardening : 24 hours
- Forced drying 30-40 minutes at 60-80°C
- Maximum chemical resistance: After 7 days

RECOMMENDED COATS: One light coat and one standard coat

RECOMMENDED THICKNESS: 40-50 µm

³ You may need Antifoam additive 03.009 in order to avoid bubble formation whilst using these tools

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THEORETIC YIELD ⁴:	8-10 m ² /kg
POT-LIFE AT 20° C:	6 hours. At higher temperatures, pot-life decreases
SALT SPRAY TEST (ASTM B 117):	150 hours if applied DTM with a final dried film thickness of 50µm. 500 hours if applied on epoxy primer 29.3.70121 or acrylic primer 69.3.R7035 with a final film thickness of 120-140µm.
ADHESION (ASTM D 3359):	B=5 on surfaces treated like above reported
IMPACT TEST (ASTM D 2794):	36 kg direct on sanded iron
YELLOWING (ASTM D 4587):	after 1000 hours, ΔE<3
CHEM. RESIST ⁵ (UNI EN ISO 12720):	
	HCl solut. 10% vote 4 7 days
	HNO ₃ solut. 10% vote 2 5 days
	H ₂ SO ₄ solut. 10% vote 5 7 days
	Acetic acid solut. 10% vote 4-3 7 days
	Mix of NaCl 10%, Lactic acid 5% vote 5 7 days
	Synthetic sweat vote 5 7 days
	H ₂ O ₂ 35% vote 1 3 days
	NH ₃ solut. 30% vote 5 7 days
	NaOH solut. 10% vote 5 7 days
	Acetone vote 4-3 7 days
	Cyclohexanone vote 1 2 days
	Solvesso 100 vote 5 7 days
	Ethyl acetate vote 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
	Unleaded gasoline vote 5 7 days
REPAINTING:	After minimum 6 hours. After total hardening, it is better a light sanding before overcoating.
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.

⁴ The theoretical yield has been calculated for the thickness suggested and over plane and regular surfaces.

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