

TECHNICAL DATA SHEET

Date of issue: 06/04/2016

Last updating: n.4 23/04/2021



Name: ACRYLAC EXTRA DTM GLOSS
Definition: Two-pack acrylic-urethane enamel
Code: 57.1

Category: Top coat
V.O.C. limit: 420 g/l
V.O.C. ready to use: 420** g/l
Product according to 2004/42/CE
**** Only if applied without dilution**

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 applications on direct adhesion and high dry thickness. It is suitable for general use, machines tools, coachwork, marine sector, industrial applications, concrete applications, doors and windows-frames, plastics, earthmovers, containers, etc.

Suitable for use with direct adhesion on metals and plastics. Considering the variety of commercially available materials, we strongly recommend doing preliminary tests. 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.

The product shows direct adhesion without a previous primer application¹. Because of the big variety of substrates it 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: no sanding, but careful 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 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 (from 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.

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

¹ This solution is recommended for indoor and outdoor applications. For outdoor applications, if it is necessary to improve the corrosion resistance of the system, we suggest applying one of the mentioned primers.

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	57.1	Acrylac extra gloss	100 parts	100 parts
Component B	01.H5T	Acryrex HS Extra	25 parts	30 parts
In alternative	01.H3	Acryrex HS	30 parts	36 parts

Carefully mix until an even colour and consistency are obtained. For airless application no dilution is required, for standard airmix application dilute with our polyurethane thinner 07.013 at maximum 15% to obtain a viscosity of 30-40" Ford 4. To get better direct adhesion results on metals, we recommend using our additive 03.040 at 3%.

APPLICATION

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

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

Roller or brush: Only for small surfaces ³

TECHNICAL DATA

PRODUCT TYPE: Two pack product

FILM APPEARANCE (ASTM D 523): Gloss, 87±3 gloss

COLOURS: By request (by using the binder 57.1.K1 with a binder/tinters ratio 75/25)

SPECIFIC WEIGHT (iso 2811): 1,15 ± 0,07 g/cm³ (A component only)

SPECIFIC WEIGHT (iso 2811): 1,14 ± 0,07 g/cm³ (A+B)

SUPPLY VISCOSITY : 26" (±10") cup Ford 8

SOLID ON VOLUME: 57% (±3%) ready to use

SOLIDS CONTENT: 67% (±3%)

DRYING AT 20°C

- Dust dry: 20-30 minutes
- Touch dry: 4-6 hours
- Total hardening: 24-36 hours
- Maximum chemical resistance: After 10 days

RECOMMENDED COATS: Minimum two crossed coats

THICKNESS: 80 µm to 200 µm dry

THEORETIC YIELD: 3-8 m²/kg depending on the final thickness

POT-LIFE AT 20° C: 3 hours at 20°C. At higher temperatures, pot-life decreases.

SALT SPRAY TEST(ASTM B 117): If applied with a final thickness of 150-180µm, 500 hours. In cycle with

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

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UNI EN ISO 12944-6 CERTIFICATION:

epoxy primer 29.3 and 57.1 as topcoat for 140-160µm of total thickness, it reaches 1000 hours.

The product applied directly to metal, complies with **UNI EN ISO 12944-6** "Corrosion protection of steel structures by protective paint system" class C4M, suitable for industrial environment and coastal areas with moderate salinity (final thickness 150 µm).

IMPACT TEST (ASTM D 2794):

36 kg direct

ADHESION (ASTM D 3359):

B=5 on iron, galvanized sheet and aluminium always slightly sanded.

YELLOWING (ASTM D 4587):

after 1500 hours, $\Delta E < 6$

CHEM. RESIST. ⁴ (UNI EN ISO 12720):

HCl solut. 10%	vote	4-3	7 days
HNO ₃ solut. 10%	vote	4-3	7 days
H ₂ SO ₄ solut. 10%	vote	5-4	7 days
Acetic acid solut. 10%	vote	4	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	5-4	7 days
NH ₃ solut. 30%	vote	5	7 days
NaOH solut. 10%	vote	5	7 days
Acetone	vote	5-4	7 days
Cyclohexanone	vote	1	2 days
Solvelso 100	vote	3	7 days
Ethyl acetate	vote	5-4	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:

From 30 minutes to 6 hours with itself. Otherwise wait 24 hours, then after a previous light sanding, the product can be over-coated.

STORAGE STABILITY:

One year for A component. Six months for B component. Stored in closed packs, in a cool, dry place, away from any sources of heat.

⁴ 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.