

2C PUR Acrylic Paint 5742



Two-component polyurethane paint with excellent gloss and color stability for both interior and exterior use

Field of application

As highly weather resistant quality perfectly suitable for e.g. appliances, automobile accessories, structural elements/structural sections (aluminum), structural elements/structural sections (steel), construction machines farming machines, small iron work, furniture (interior), garage doors, garden furniture and equipment, household appliances, medical equipment, shop and trade fair design, lamps and light fixtures, machines, motors, drives, utility vehicles, radiators, racks, switching panels, silos, steel tanks, steel cylinders, door and fence systems, doors, door and window frames, vending machines, housing and construction site containers.

Properties

- excellent weather resistance
- good adhesion on many substrates
- high mechanical resistance
- good chemical and solvent resistance
- constant temperature resistance up to 100 °C ¹⁾
- fast drying
- high degree of stability
- easy application (air-mix and airless)
- once fully cured (cross-linked), the paint film is physiologically safe

¹⁾ in structure according to coating recommendation

Technical data

Basis	Combination of hydroxyacrylate and aliphatic polyisocyanate
Colors	All common color systems
Degree of gloss	silk matt, 45 to 55 GU/60° (in accordance with DIN EN ISO 2813)
Density	0.90 to 1.40 g/cm ³ (in accordance with DIN EN ISO 2811) ²⁾
Theoretical coverage	420 to 480 m ² /kg (with 1 µm dry film thickness) ²⁾³⁾
Solids content	50 to 68 weight-% ²⁾
Delivery viscosity at 20 °C	300 to 400 mPas

²⁾ depending on color

³⁾ in mixture with PUR-Hardener 5770.-.0010

Technical data

Stability	200 to 250 µm (wet film)
Outdoor weather exposure Florida (5° south)	after 12 months residual gloss ≥ 80 % of initial gloss (in accordance with DIN EN ISO 2810)
Accelerated weathering QUV-B/SE	after 600 h residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 16474-3)
Accelerated weathering Xenon	after 1.000 h residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 16474-2)
Flash point	> 23 °C
Labeling	See current safety data sheet.

Coating recommendation

Substrates ⁴⁾	Prime coat	Intermediate coat	Top coat
Steel preferably sand-blasted (degree of purity at least SA 2 ½ in accordance with DIN EN ISO 12944, Part 4), iron or zinc-phosphated.	2C PUR Acrylic Primer 5705 40 to 60 µm	If required (specified layer thickness), a second layer can be applied using the corresponding primer. In the case of topcoats with intense colors (see "Process"), an additional intermediate coat in RAL 9010 (approx. 40 µm) using 5742.-.9010 is required.	2C PUR Acrylic Paint 5742 40 to 80 µm
Cast iron	2C PUR High Solids Primer 5703 40 to 80 µm		
Galvanized steel			
Aluminum	2C Epoxy Primer 5706 40 to 80 µm		
Non-ferrous metals etc.			

⁴⁾ Generally, the substrate shall be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities.

Coating recommendation according to DIN EN ISO 12944

tested on low alloyed steel, surface preparation grade: SA 2.5, depth or roughness: medium to high (25 to 60 µm)

Corrosive category	C3			C4			C5		
	low	med.	high	low	med.	high	low	med.	high
Protection duration in years	2-5	5-15	> 15	2-5	5-15	> 15	2-5	5-15	> 15
Constant climatic test (h)	48	120	240	120	240	480	240	480	720
Salt spray test (h)	120	240	480	240	480	720	480	720	1440
2C EP Primer 5706 (60 µm) ⁵⁾ + 2C PUR Acrylic Paint 5742 (60 µm)	C3 L	C3 M	C3 H	C4 L	C4 M				
2C-EP Primer 5706 (80 µm) ⁵⁾ + 2C PUR Acrylic Paint 5742 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2C EP Primer 5706 (80 µm) ⁵⁾ + 2C EP Primer 5706 (80 µm) ⁵⁾ + 2C PUR Acrylic Paint 5742 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L	C5-I M	
2C EP Zinc Dust paint 5707 (80 µm) ⁵⁾ + 2C EP Primer 5706 (80 µm) ⁵⁾ + 2C EP Primer 5706 (80 µm) ⁵⁾ + 2C Acrylic Paint 5742 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5- I/M L	C5- I/M M	C5- I/M H

⁵⁾ Recoating must be performed within 72 hours to achieve an adequate intercoat adhesion. After this period, light sanding is required.

Hardener

PUR-Hardener 5770.-.0010	Mixing ratio 9 : 1 weight-% (8 : 1 Vol.-%).
PUR Hardener 5770.-.0011 (standard curing)	Standard Hardener for coatings under normal conditions
PUR-Hardener 5770.-.0020 (slow curing)	Mixing ratio: 5 : 1 weight-% (4 : 1 Vol.-%). Especially suited for spray applications on warmer days (> 30 °C) or large surface coatings to improve spray dust adhesion and levelling. Slow initial drying with forced drying conditions and flash off time.
PUR-Hardener 5770.-.0030 (fast curing)	Mixing ratio: 5 : 1 weight-% (4 : 1 Vol.-%). Especially suited for spray applications on small surface and geometrically demanding coatings with fast drying.
Basis	Aliphatic polyisocyanate
Mixing	As 2C system, the actual paint and the hardener are supplied separately and mixed homogeneously in the specified mixing ratio just before application.
Shelf life	6 months after receipt. Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect from heat sources and direct sunlight.
Minimum shelf life	Refer to label

Process

	Material has to be stirred until homogenous before application.
Thinner	PUR Thinner 5102 (medium volatile) PUR Thinner 5101 (slow volatile) To improve levelling in cause of larger coating surfaces. Disperse homogeneously by stirring.
Pot life	With PUR-Hardener 5770.-.0010: 2.5 to 4 h (at 20 °C) With PUR-Hardener 5770.-.0020: 3.0 to 5 h (at 20 °C) With PUR-Hardener 5770.-.0030: 2.0 to 3.5 h (at 20 °C)
Application temperature	> 5 °C (object temperature 3 °C above dew point)
Humidity	< 80 % r.h.
Application	Air spraying, air-mix spraying, airless, e-static, roller/brush application.
Compatibility	Compatibility is given only in combination with the hardeners, thinners and primers mentioned in this Technical Data Sheet.
Adhesion Additive (1004) 5136	The adhesion on plastics can be improved with Adhesion Additive 5136.-.0023 (see Technical Data Sheet Adhesion Additive 5136.-.0023). In combination with PUR Hardener 5770.-.0010.
Use of intense colors	Brilliant intense colors, particularly in the yellow, orange, red, magenta and yellow-green ranges (relevant RAL Classic Uni-Colors see below) have a lower covering capacity. With these colors, we recommend applying an intermediate coat in RAL 9010 (approx. 40 µm) using 5742.-.9010. Affected RAL Classic color shades: RAL 1003 RAL 2001 RAL 3011 RAL 1004 RAL 2002 RAL 3013 RAL 1006 RAL 2003 RAL 3016 RAL 1007 RAL 2004 RAL 3018

RAL 1012	RAL 2008	RAL 3020
RAL 1016	RAL 2009	RAL 3027
RAL 1017	RAL 2010	RAL 3031
RAL 1018	RAL 2011	RAL 4002
RAL 1021	RAL 3000	RAL 4004
RAL 1023	RAL 3001	RAL 4007
RAL 1028	RAL 3002	RAL 4010
RAL 1032	RAL 3003	RAL 6018
RAL 1033	RAL 3004	RAL 6026
RAL 1037	RAL 3005	RAL 8023
RAL 2000	RAL 3007	

Drying

Air-drying (at + 20 °C, 65 % r. h.)

Degree of dryness according to DIN EN ISO 9117-5

With PUR-Hardener 5770.-.0010 (standard curing):

T1= dust-dry after 30 to 60 minutes.,
re-working after approx. 2 hours,
T4= non-sticky after 7 to 8 hours,
cured after 7 days.

With PUR-hardener 5770.-.0020 (slow curing):

T1= dust-dry after 60 to 90 minutes,
re-working after approx. 2 hours
T4= non-sticky after 7 to 8 hours,
cured after 7 days.

With PUR-hardener 5770.-.0030 (fast curing):

T1= dust-dry after 30 to 60 minutes,
re-working after approx. 2 hours
T4= non-sticky after 5 to 6 hours,
cured after 7 days.

Oven drying

Keep the flash-off time for 30 minutes. Afterwards stoving the paint for approx. 30 minutes at an object temperature of approx. 80 °C.

Drying/cross-linking of the applied paint film requires temperatures of + 5 °C or higher. The drying time decreases when the temperature is increased.

Spray data

Process	Nozzle	Pressure	Application viscosity ⁶⁾
Air spraying	1.3 to 1.5 mm	4 to 5 bar	20 to 25 sec.
Air-mix spraying	0.23 to 0.33 mm	120 to 150 bar (material) 1 to 3 bar (air)	35 to 45 sec. ⁷⁾

⁶⁾ Measured in DIN 4 mm flow cup (in mixture).

⁷⁾ The 2C PUR Acrylic Paint mixed with PUR-Hardener 5770.-.0020 and PUR-Hardener 5770.-.0030 processing undiluted.

Packaging

27 kg

Further container sizes available upon request.

Shelf life

24 months after receipt.

Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect from heat sources and direct sunlight. Always keep the containers tightly sealed. Protect the contents from surface drying and drying out. Dried paint residues and surface-dried skin are insoluble in paint and can only be removed by sieving.

Minimum shelf life Refer to label

Remark

This Technical Data Sheet is based on intense development work and many years of practical experience. The contents do not constitute any contractual relationship. The user/buyer is not released from his/her obligation to test our products for suitability for the intended application. In addition, our General Terms and Conditions shall apply.

As soon as a new edition of this Technical Data Sheet is issued, the previous specifications become invalid.

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