

# Technical Data Sheet

## 2C PUR Acrylic Paint 5740 high gloss 5741 silk gloss



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 even on difficult substrates
- high mechanical resistance
- good chemical and solvent resistance
- continuous temperature resistance to 100°C <sup>1)</sup>
- fast drying
- high degree of stability
- easy application (air-mix and airless)
- once fully cured (cross-linked), the paint film is physiologically safe

<sup>1)</sup> in structure according to coating recommendation

### Approvals/permits

#### ISEGA

Certificate of Conformity (for contact with dry foodstuff) in combination with 2C Epoxy Primer 5706, ISEGA-Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg,  
5740: approval no.: 62898 U 24  
5741: approval no.: 58980 U 23

## Technical data

<b>Basis</b>	Combination of hydroxyacrylate and aliphatic polyisocyanate
<b>Colors</b>	All common color systems
<b>Degree of gloss</b>	5740 high gloss, > 90 GU/60° 5741 silk gloss, 60 to 70 GU/60° (in accordance with DIN EN ISO 2813)
<b>Density</b>	0.90 to 1.40 g/cm <sup>3</sup> (in accordance with DIN EN ISO 2811)
<b>Theoretical coverage</b>	420 to 480 m <sup>2</sup> /kg (with 1 µm dry film thickness) <sup>2)3)</sup>
<b>Solids content</b>	50 to 68 weight% <sup>2)</sup>
<b>Delivery viscosity at 20 °C</b>	5740: 90 to 120 sec./DIN 4 mm 5741: 150 to 250 mPas
<b>Stability</b>	150 to 250 µm (wet film)
<b>Outdoor weather exposure Florida (5° south)</b>	5740: after 24 months residual gloss ≥ 70 % of initial gloss 5741: after 24 months residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 2810)
<b>Accelerated weathering QUV-B/SE</b>	after 600 h residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 16474-3)
<b>Accelerated weathering Xenon</b>	after 1.000 h residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 16474-2)
<b>Flash point</b>	> 23 °C
<b>Labeling</b>	See current safety data sheet.

<sup>2)</sup> depending on color

<sup>3)</sup> in mixture with PUR-Hardener 5770.-.0010

## Coating recommendation

Substrates <sup>4)</sup>	Prime coat	Intermediate coat	Top coat
<b>Steel</b> preferably sand-blasted (degree of purity at least SA 2 ½ in accordance with DIN EN ISO 12944, Part 4 ), iron or zinc-phosphated.  <b>Cast iron</b>  <b>Galvanized steel</b>  <b>Aluminum</b>  <b>Non-ferrous metals etc.</b>	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 5740, 5741 40 to 80 µm
	2C PUR High Solids Primer 5703 40 to 80 µm		
	2C Epoxy Primer 5706 40 to 80 µm		

<sup>4)</sup> 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
<b>Therm of protection in years</b>	<b>2-5</b>	<b>5-15</b>	<b>&gt; 15</b>	<b>2-5</b>	<b>5-15</b>	<b>&gt; 15</b>	<b>2-5</b>	<b>5-15</b>	<b>&gt; 15</b>
<b>Constant climatic test (h)</b>	<b>48</b>	<b>120</b>	<b>240</b>	<b>120</b>	<b>240</b>	<b>480</b>	<b>240</b>	<b>480</b>	<b>720</b>
<b>Salt spray test (h)</b>	<b>120</b>	<b>240</b>	<b>480</b>	<b>240</b>	<b>480</b>	<b>720</b>	<b>480</b>	<b>720</b>	<b>1440</b>
2C Epoxy Primer 5706 (60 µm) <sup>5)</sup> + 2C PUR Acrylic Paint 5740-5741 (60 µm)	C3 L	C3 M	C3 H	C4 L	C4 M				
2C Epoxy Primer 5706 (80 µm) <sup>5)</sup> + 2C PUR Acrylic Paint 5740-5741 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2C Epoxy Primer 5706 (80 µm) <sup>5)</sup> + 2C Epoxy Primer 5706 (80 µm) <sup>5)</sup> + 2C PUR Acrylic Paint 5740-5741 (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) <sup>5)</sup> + 2C Epoxy Primer 5706 (80 µm) <sup>5)</sup> + 2C Epoxy Primer 5706 (80 µm) <sup>5)</sup> + 2C Acrylic Paint 5740-5741 (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

<sup>5)</sup> Over Coating within 72 h, to achieve an intermediate adhesion. After this time sand slightly is required.

## Hardener

**PUR-Hardener 5770.-.0010**  
**PUR-Hardener 5770.-.0011**  
(standard curing)

mixing ratio 5 : 1 weight-% (4 : 1 Vol.-%).  
Standard Hardener for coatings under normal conditions.

**PUR-Hardener 5770.-.0020**  
(slow curing)

mixing ratio: 3,5 : 1 weight-% (2,8 : 1 Vol.-%).  
Suitable for spray booth 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: 3,5 : 1 weight-% (2,8 : 1 Vol.-%).  
Suitable for spray booth on small surface and geometrically demanding coatings with fast drying

**Basis** Aliphatic polyisocyanate

**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

**Mixing** As 2C system, the actual paint and the hardener are supplied separately and mixed homogeneously in the specified mixing ratio just before application.

Material has to be stirred until homogenous before application.

**Thinner** For processing with PUR-Hardener 5770.-.0010:

PUR Thinner 5102 (medium volatile)  
PUR Thinner 5101 (slow volatile)

To improve levelling in cause of larger coating surfaces.  
Disperse homogeneously by stirring.

**Accelerator** For processing with PUR-Hardener 5770.-.0010:

2C PUR Top Coat Accelerator 5136.-.0021 in medium volatile solvent with accelerating drying effect, suitable for 2C PUR Acrylic Paint 5740. The use of 2C PUR Top Coat Accelerator reduces pot life (see table). Recommended added quantities: 5 %

quantity to be added	5 %	7 %	10 %
pot life	2,0 h	1,0 h	< 1,0 h

Disperse homogeneously by stirring.

**Pot life** With PUR-Hardener 5770.-.0010: 2.5 to 4.0 h (at 20 °C)  
With PUR-Hardener 5770.-.0020: 3.0 to 5.0 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.

**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 min., re-working after approx. 2 h,  
T4= non-sticky after 7 to 8 h, cured after 7 days

with PUR-hardener 5770.-.0020 (slow curing):  
T1= dust-dry after 60 to 90 min., re-working after approx. 2 h  
T4= non-sticky after 7 to 8 h, cured after 7 days.

with PUR-hardener 5770.-.0030 (fast curing):  
T1= dust-dry after 30 to 60 min., re-working after approx. 2 h  
T4= non-sticky after 5 to 6 h, 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 <sup>6)</sup>
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. <sup>7)</sup>

<sup>6)</sup> measured in DIN 4 mm flow cup (in mixture).

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

## Packaging

25 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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