

## 2C PUR Acrylic Primer 5705

Polyurethane corrosion protection primer for a wide range of substrates



### Field of application

The coating build-up (see coating suggestions) results in corrosion protection and weather resistant coatings for a wide range of applications, e.g. structural elements/structural sections (steel and aluminum), construction and agricultural machines, fittings, furniture (interior), garage doors, garden furniture and equipment, shop and trade fair design, machines, engines, drives, commercial vehicles, radiators, steel containers, doors, door and window frames, vending machines, as well as residential and construction containers. Not suitable for heavy-duty corrosion protection.

### Properties

- extremely good corrosion protection
- extremely good adhesion on ferrous and non-ferrous metal, as well as many plastics
- high stability with good leveling characteristics
- high mechanical resistance
- after complete curing (cross-linking), the paint film is physiologically harmless
- can be coated with Brillux 2C paints and synthetic resin paints

### Technical data

<b>Basis</b>	Combination of hydroxyacrylate and aliphatic polyisocyanate
<b>Colors</b>	beige, red brown, light gray, pebble gray, white, black
<b>Degree of gloss</b>	Matt
<b>Density</b>	1.35 to 1.45 g/cm <sup>3</sup> (in accordance with DIN EN ISO 2811)
<b>Theoretical coverage</b>	300 to 350 m <sup>2</sup> /kg (with 1 µm dry film thickness) <sup>1)2)</sup>
<b>Solids content</b>	58 to 68 weight-% <sup>1)</sup>
<b>Delivery viscosity at 20 °C</b>	220–300 mPas
<b>Stability</b>	approx. 250 µm (wet film)

<sup>1)</sup> depending on color

<sup>2)</sup> in mixture

## Technical data

<b>Salt spray test</b>	Delamination at the scribe $\leq 2$ mm (in accordance with DIN EN ISO 4628-8) <sup>3)</sup> On Gardobond OC $\geq 240$ h On SA 2 ½-blasted steel $\geq 480$ h (in accordance with DIN EN ISO 9227-NSS) <sup>3)</sup>
<b>Condensation water test</b>	Degree of blistering 0 (S0) (in accordance with DIN EN ISO 4628-2) <sup>3)</sup> On Gardobond OC $\geq 240$ h On SA 2 ½-blasted steel $\geq 240$ h (in accordance with DIN EN ISO 6270-2) <sup>3)</sup>
<b>Electrical resistance</b>	100–1,000 k $\Omega$ <sup>4)</sup> (Ransburg probe)
<b>Flash point</b>	> 23 °C
<b>Labeling</b>	See current safety data sheet

- <sup>3)</sup> in system build-up with recommended top coat systems in accordance with the coating suggestion  
<sup>4)</sup> in mixture

## Coating recommendation

Substrates <sup>5)</sup>	Prime coat	Intermediate coat <sup>6)</sup>	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>Eloxal</b>  <b>Non-ferrous metals</b>	2C PUR AC Primer 5705 40 to 60 $\mu\text{m}$	If required (specified film thickness), a second layer can be applied using the corresponding primer.	2C PUR High Solid Paint 5730, 5731, 5732, 5733, 5736, 5737 40 to 80 $\mu\text{m}$
			2C PUR AC Paint 5740, 5741, 5742, 5743, 5744, 5746, 5747, 5748, 5749 40 to 80 $\mu\text{m}$
			Hydro 2C PUR Paint 5860, 5861, 5862, 5863 40 to 60 $\mu\text{m}$

<sup>5)</sup> The substrate must generally be free of fats, oils, separating and drawing agents, as well as dirt and corrosion products including impurities.

<sup>6)</sup> With top coats in intensive color shades, an additional intermediate coat in color shade RAL 9010 (approx. 40  $\mu\text{m}$ ) e. g. with 5742.-.9010 is required.

## Coating recommendation based on DIN EN ISO 12944

(tested on low-alloy steel, degree of surface preparation: SA 2.5; roughness depth: medium to high (25 to 60 µm))

Corrosivity category	C2			C3			C4			C5		
	low	med.	high	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	2-5	5-15	> 15
Constant climate test (h)	48	48	120	48	120	240	120	240	480	240	480	720
Salt spray test (h)	-	-	-	120	240	480	240	480	720	480	720	1440
2C PUR AC Primer 5705 (60 µm) + 2C PUR High.Solid Paint 5730–5733 (60 µm) <sup>7)</sup>	C2 L	C2 M	C2 H	C3 L	C3 M	C3 H	C4 L					

<sup>7)</sup> Alternatively, instead of 2C PUR High-Solid Enamels 5730–5733, 2CK PUR AC Paints 5740–5743 can also be used with the same result.

## Hardener

PUR Hardener 5770.-.0010 (standard curing)  
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**Basis** Aliphatic polyisocyanate

**Mixing ratio** 20 : 1 weight-% (16 : 1 vol.-%)

**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 of goods.  
Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect against heat and direct sun impact.

**Minimum shelf life** Refer to label

## Process

Material has to be stirred until homogenous before application.

**Thinner** PUR Thinner 5103 (highly volatile)  
Disperse homogeneously by stirring.

**Accelerator** 2C PUR Primer Accelerator 5136.-.0020 with highly volatile thinner setting and accelerating drying effect primarily suited for the types 2C PUR-High-Solid Primer 5703 and 2C PUR AC Primer 5705. Using the 2C PUR Primer Accelerator shortens the pot life (see table).  
Recommended quantity added: 5 %

Quantity added	5 %	7 %	10 %
Pot life	1.5 h	1.0 h	< 45 min.

Disperse homogeneously by stirring.

**Pot life** 3 to 4 h (at 20 °C)

**Application temperature** > 5 °C (object temperature 3 °C above dew point)

**Humidity** < 80 % r.h.

**Compatibility** Compatibility is given only in combination with the hardeners, thinners and top coats mentioned in this Technical Data Sheet.

## Application

**Application** Airless spraying, Air-mix spraying, air spraying, E-static spraying, roller application, brush application.

## Drying

**Air-drying  
(at + 20 °C, 65 % r. h.)** Dust dry after approx. 20 to 30 minutes, tack-free after approx. 1 to 2 hours, recoatable after approx. 2 hours, completely dry after approx. 24 hours. Fully cured after 6 to 8 days.

**Oven drying** Allow for approx. 20 to 30 minutes flash-off time. Then allow the paint to stove in for approx. 20 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>8)</sup>
Airless spraying	0.23 to 0.33 mm	120 to 180 bar (material)	50 to 60 sec.
Air-Mix spraying	0.23 to 0.33 mm	120 to 150 bar (material) 1 to 3 bar (air)	50 to 60 sec.
Compressed-air-spraying	1.5 to 1.7 mm	4 to 5 bar	30 to 40 sec.
E-static spraying	0.23 to 0.33 mm	120 to 150 bar (material) 1 to 3 bar (air) approx. 60 kV (electric voltage)	30 to 40 sec.

<sup>8)</sup> Measured in DIN 4 mm flow cup (in mixture).

## Packaging

30 kg

## 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

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