

2C PUR High Solid Paint

5730 high gloss

5731 silk gloss

5732 silk matt

5733 matt



High-solid-content, two-component, high-solids, polyurethane paint for weather-resistant coatings in four degrees of gloss



Field of application

Given its corrosion protection, resistance to chemicals and weather-resistant quality, it is universally suitable for equipment, automotive accessories, construction and agricultural machinery, fittings, garage doors, shop and trade fair design, machines, motors, drives, commercial vehicles, steel cylinders, door and window frames, doors, frames, steel construction as well as residential and construction containers.

Properties

- Reduced VOC content
- Excellent weather resistance
- High yield
- Fast drying
- Outstanding corrosion protection
- Excellent adhesion even on difficult substrates
- Good stability
- Very good resistance to chemicals
- Long-term temperature resistance up to 100 °C ¹⁾
- Good leveling characteristics
- High mechanical resistance
- After sanding, can be painted over with synthetic resin and 2C paints
- single coat can be applied to
SA 2 ½ sand-blasted steel and degreased steel (Gardobond OC)

²⁾ Build-up in accordance with coating suggestion

Material description

Basis	Combination of hydroxyacrylate and aliphatic polyisocyanate
Color shades	All common color systems. Small quantities up to 100 kg in all RAL-Classic-Uni color shades available quickly via the quick delivery service (except 5733).
Degree of gloss	5730 high gloss, > 85 GU/60° 5731 silk gloss, 60-70 GU/60° 5732 silk matt, 40-50 GU/60° 5733 matt, 20-30 GU/60° (in accordance with DIN EN ISO 2813)
Density	1.38–1.58 g/cm ³ ²⁾ (in accordance with DIN EN ISO 2811)
Theoretical yield	390-480 m ² / kg ^{2) 3)} (with 1 µm dry layer)
VOC content	280–390 g/l ^{2) 3)}
Solid content	72-78 wt% ²⁾
Delivery consistency at 20 °C	Type 5730: 100-110 sec./DIN 4 mm Types 5731/5732/5733: 600–700 mPas (thixotropic)
Stability	150-200 µm (wet film)
Salt spray test	Delamination at the scribe ≤ 2 mm (in accordance with DIN EN ISO 4628-8) ⁴⁾ on Gardobond OC: ≥ 120 h on SA 2 ½ blasted steel ≥ 480 h (in accordance with DIN EN ISO 9227-NSS) ⁴⁾
Condensation water test	Degree of blistering 0 (S0) (in accordance with DIN EN ISO 4628-2) ⁴⁾ on Gardobond OC ≥ 120 h on SA 2 ½ blasted steel ≥ 480 h (in accordance with DIN EN ISO 6270-2 CH) ⁴⁾
Rapid weathering QUV-B/SE	Types 5730/5731/5732: After 600 hours residual gloss ≥ 70% of initial gloss Type 5733: After 600 hours residual gloss ≥ 50% of initial gloss (in accordance with DIN EN ISO 16474-3)
Xenon accelerated weathering	Types 5730/5731/5732: After 1000 hours residual gloss ≥ 80% of initial gloss Type 5733: After 1000 hours residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 16474-2)
Electrical resistance	150-1000 kΩ ³⁾ (Ransburg probe)
Flash point	> 23 °C
Labeling	See current Safety Data Sheet.

²⁾ Dependent on the color shade

³⁾ Mixed with PUR Hardener 5770 - 0010

⁴⁾ Or in a single layer on a suitably pretreated surface

Coating suggestion

Substrates ⁵⁾	Prime coating	Intermediate coating	Final coating
Single-layer coating Steel Preferably sand-blasted (degree of cleanliness min. SA 2 ½ in accordance with DIN EN ISO 12944, part 4) and	Not applicable	Not applicable	2C PUR High Solid Paint 5730, 5731, 5732, 5733 80-100 µm
Steel Preferably sand-blasted (degree of cleanliness min. SA 2 ½ in accordance with DIN EN ISO 12944, part 4), iron or zinc phosphated. Cast Galvanized steel Aluminum	2C PUR AC Primer 5705 40-60 µm 2C PUR High Solid Enamel Primer 5703 40-80 µm 2C Epoxy Primer 5706 40-80 µm	If required (film thickness specification), a second layer can be applied with the corresponding primer. For top coats in intense color shades (see application), an intermediate coating in color shade RAL 9010 (approximately 40 µm) is required with 5732.-.9010.	2C PUR High Solids Paint 5730, 5731, 5732, 5733 40–80 µm

⁵⁾ The substrate must generally be free of fats, oils, separating and drawing agents, as well as dirt and corrosion products including contaminants.

Coating suggestion based on DIN EN ISO 12944

(tested on low-alloy steel, surface preparation degree: SA 2.5; raw depth: Medium to high (25–60 µm))

Corrosivity category	C3			C4			C5		
	low	med.	high	low	med.	high	low	med.	high
Protection time in years	2-5	5-15	>15	2-5	5-15	>15	2-5	5-15	>15
Constant climate 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 PUR High Solid Paint 5730-33 (60 µm) ⁶⁾ + 2C PUR High Solid Paint 5730-33 (60 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2C Epoxy Primer 5706 (80 µm) ⁶⁾ + 2C PUR High Solid Paint 5730-33 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2C Epoxy Primer 5706 (80 µm) ⁶⁾ + 2C Epoxy Primer 5706 (80 µm) ⁶⁾ + 2C PUR High Solid Paint 5730-33 (80 µm)	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L	C5-I M	
2C Epoxy Zinc Dust Paint 5707 (80 µm) ⁶⁾ + 2C Epoxy Primer 5706 (80 µm) ⁶⁾ + 2C Epoxy Primer 5706 (80 µm) ⁶⁾ + 2C PUR High Solids Paint 5730-33 (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

⁶⁾ The second coating should be applied within 72 hours to guarantee sufficient intermediate adhesion. If the second coating follows after more than 72 hours, the surface should be sanded beforehand.

Hardener

PUR Hardener 5770.-.0010	Mixing ratio: Diluted 6 : 1 wt% (4.5 : 1 vol%).
PUR Hardener 5770.-.0011 (standard curing)	Standard hardener for coating work under normal conditions.
PUR Hardener 5770.-.0020 (slow curing)	Mixing ratio: Diluted 5 : 1 wt% (3.5 : 1 vol%). Particularly suited to spray applications on warmer days (> 30 °C) or for challenging, large-area coatings to improve spray mist absorption and leveling. Due to the slower surface drying, the flash-off time is also shorter under forced drying conditions.
PUR Hardener 5770.-.0030 (fast curing)	Mixing ratio: Diluted 5 : 1 wt% (3.5 : 1 vol%). Ideally suited to spray applications on small-area, geometrically more demanding coating objects, where faster paint drying is required.
Basis	Aliphatic polyisocyanate
Shelf life	6 months after receipt of goods. Store in a sealed container in a dry place and at room temperature (max. 25 °C). Protect from heat sources and direct sunlight.
Minimum shelf life	Refer to label
Mixing	Base paint and hardener are supplied separately as a 2K system and these are mixed homogeneously in the specified mixing ratio shortly before the application.

Application

	Stir the material homogeneously before application.
Compatibility	Can only be combined with the hardeners, thinners, and primers specified in this Technical Data Sheet
Implementation in intense color shades	Brilliant intense color shades, in particular in the realms of yellow, orange, red, magenta and yellow-green (for the RAL Classic Uni Color Shades affected, see below) have a lower hiding power. For these color shades, we recommend an intermediate coating in color shade RAL 9010 (approximately 40 µm) with 5732.-.9010 RAL Classic color shades affected: 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

Application

Application temperature	> 5 °C object temperature (3 °C above the dew point)
Dilution	For use with PUR Hardener 5770.-.0010: PUR Thinner 5103 (high-volatile) PUR Thinner 5102 (semi-volatile) PUR Thinner 5101 (low-volatile) To improve the leveling of large-surface coatings. Distribute homogeneously while stirring
Humidity	< 80% relative humidity
Pot life	Mixed with PUR Hardener 5770.-.0010: 2.0-2.5 h (at 20 °C) Mixed with PUR Hardener 5770.-.0020: 2.0-3.0 h (at 20 °C) Mixed with PUR Hardener 5770.-.0030: 2.0-2.5 h (at 20 °C)

Application procedure

Application procedure	Air mix spraying, air spraying, E-static spraying, HVLP spraying.
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Drying

Air drying (at + 20 °C, 65% relative humidity)	Degree of curing in accordance with DIN EN ISO 9117-5 Mixed with PUR Hardener 5770.-.0010 (standard curing): T1= Dust dry after approx. 60 minutes, recoatable after approx. 2 hours, T4 = Tack-free after 7-8 hours, cured after 6-8 days. Mixed with PUR Hardener 5770.-.0020 (slow curing): T1= Dust dry after approx. 60-90 minutes, recoatable after approx. 2 hours, T4 = Tack-free after 7-8 hours, cured after 6-8 days. Mixed with PUR Hardener 5770.-.0030 (fast curing): T1= Dust dry after approx. 60 minutes, recoatable after approx. 2 hours, T4 = Tack-free after 6-7 hours, cured after 6-8 days.
Oven drying	Maintain the flash-off time for 20–30 minutes. Then force-dry the paint for approx. 40 minutes at 60°C (object temperature). It is only possible to dry or cross-link the applied paint film at temperatures above + 5 °C. The drying time decreases with the temperature increase.

Spray data

Method	Nozzle opening	Pressure	Application consistency ⁷⁾
Air spraying	1.3-1.6 mm	3-5 bar	20–30 sec.
Air-Mix spraying	0.28-0.38 mm	120–150 bar (material) 1-4 bar (air)	30–80 sec. ⁸⁾
E-static spraying	0.28-0.38 mm	120–150 bar (material) 1-4 bar (air) 60–80 kV electrical Voltage	30-80 sec.

⁷⁾ measured in a DIN 4 mm flow cup (in a mixture)

⁸⁾ The 2C PUR High Solid Paints mixed with PUR Hardener 5770.-.0020 and PUR Hardener 5770.-.0030 are applied without thinning.

Container sizes

30 kg.

In quick delivery service: 10 kg (except 5733).

Additional container sizes on request.

Shelf life

24 months after receipt of goods.

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 drying out. Dried paint residues and any surface-dried skin are insoluble in the paint and can only be removed by straining.

Minimum shelf life

Refer to label

Notes

This Technical Data Sheet is based on extensive development work and years of practical experience. The content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. Our general terms and conditions also apply.

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