

2C Epoxy Primer 5706

**Two-component epoxy resin primer,
for excellent adhesion on difficult surfaces**

Basis

Modified, cold-hardening epoxy resin

Colors

Beige, red brown, light gray, white, black

Gloss grade

Matt

Properties

- excellent corrosion protection
- very good chemical and solvent resistance
- excellent adhesion even on difficult surfaces; also at concrete, plaster and many plastics (first of all make tests)
- high degree of stability (up to 350 µm) with good flow
- high yield
- reduced VOC content
- high mechanical resistance
- once fully cured (cross-linking), the coating is physiologically safe
- can be coated with Brillux 2C- and Synthetic Resin Paints

Field of application

Perfectly suitable for instruments, construction elements/construction profiles (steel and aluminium), agricultural and construction machines, fittings, furniture (indoor), garage doors, garden furniture and -machines, home appliances, medical-technical equipment, machines, motors, gear, truck accessories, radiators, racks, switch cabinet, silos, steel boxes, gate- and fences systems, doors, frames, vending machine and living and construction containers.

Approvals/permits

Certificate of Conformity (for contact with dry foodstuff), ISEGA-Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Prüfnummer 38463 U 14.

Technical data

Density

1.55 to 1.65 g/cm³ ¹⁾
(in accordance with DIN EN ISO 2811)

Theoretical coverage

340 to 380 m²/kg ¹⁾²⁾
(with 1 µm dry film thickness)

VOC content

440 to 460 g/l ²⁾

Solids content

70 to 75 weight % ¹⁾

Delivery viscosity at 20°C

95 to 105 sec./DIN 4 mm
(200 to 300 mPas)

Stability

approx. 350 µm (wet film) ²⁾

Salt spray test ³⁾

Delamination at scribe ≤ 2 mm
(in accordance with DIN EN ISO 4628-8)

on SA 2½ sand blasted steel:
≥ 480 h
(in accordance with DIN EN ISO 9227-NSS)

Condensation water test ³⁾

Degree of blistering 0 (S0)
(in accordance with DIN EN ISO 4628-2)

on SA 2½ sand blasted steel
> 480 h
(in accordance with DIN EN ISO 6270-2)

Flash point

> 23 °C

Labeling

See current safety data sheet.

1) depending on color

2) in mixture

3) in combination with recommended Top coat (see Coating recommendation)

Coating recommendation

Substrates ¹⁾	Prime coat	Intermediate coat ²⁾³⁾	Top coat ²⁾
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 Cast iron Galvanized steel Aluminum Eloxal Non-ferrous metals Concrete Plaster many Plastics	2C Epoxy Primer 5706 40 to 80 µm	If required (specified film thickness), a second layer can be applied using the corresponding primer.	2C PUR Acrylic Paint 5740, 5741, 5742, 5743, 5744, 5746, 5747, 5748, 5749 40 to 80 µm
			2C PUR High-Solid Paint 5730, 5731, 5732, 5733, 5736, 5737 40 to 80 µm
			Hydro 2C PUR Paint 5860, 5861, 5862, 5863 40 to 60 µm
			2C Epoxy Thick Film Paint 5767 40 to 80 µm

- 1) Generally, the substrate shall be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities.
- 2) The second coating should be done within 72 hours to guarantee a sufficient intermediate adhesion. After this period you must check if the surface should be sanded beforehand.
- 3) Before applying topcoats in intense colors, a intermediate coat in RAL 9010 (approx. 40 µm) of 5742.-9010 is required.

Coating suggestion based on DIN EN ISO 12944

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

	Corrosivity category based on DIN EN ISO 12944-2								
	C3			C4			C5		
	low	med.	high	low	med.	high	low	med.	high
Protection time in years according to DIN	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 Epoxy Primer 5706 (60 µm) ⁵⁾ + 2C PUR High Solids Paint 5730–5733 (60 µm) ⁴⁾	C3 L	C3 M	C3 H	C4 L	C4 M				
2C Epoxy Primer 5706 (80 µm) ⁵⁾ + 2C PUR High Solids Paint 5730–5733 (80 µm) ⁴⁾	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2C Epoxy Primer 5706 (80 µm) ⁵⁾ + 2C Epoxy Primer 5706 (80 µm) ⁵⁾ + 2C PUR High Solids Paint 5730–5733 (80 µm) ⁴⁾	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) ⁵⁾ + 2C Epoxy Primer 5706 (80 µm) ⁵⁾ + 2C Epoxy Primer 5706 (80 µm) ⁵⁾ + 2C PUR High Solids Paint 5730–5733 (80 µm) ⁴⁾	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I/M L	C5-I M M	C5-I M H

4) Alternatively, 2C PUR AC Paints 5740 to 5743 can be used instead of 2C PUR High Solid Paints 5730 to 5733.

5) The second coating should be done within 72 hours to guarantee a sufficient intermediate adhesion. After this period you must check if the surface should be sanded beforehand.

Hardener

At processing temperatures above 15 °C:

EP-Hardener 5797.-.0200

Basis (hardener):

Polyaminoamide

At processing temperatures between 5 to 15 °C:

EP-Hardener 5797.-.0300

Basis (hardener):

Polyaminoamide

Storage (hardener):

The shelf life in original closed containers is 3 months. Stock dry and at room temperature. Protect against heat and direct sun impact.

Process

Material has to be stirred until homogeneous before application.

Mixing ratio

5797.-.0200 resp.5797.-.0300

6 : 1 weight % (3,5 : 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.

Thinning

EP Thinner 5106.

Disperse homogeneously by stirring.

Pot life

In mixture with 5797.-.0200:

6 to 8 h (at 20 °C)

In mixture with 5797.-.0300:

5 to 6 h (at 20 °C)

Application temperature

> 15 °C (object temperature 3 °C above dew point).

For processing temperatures between 5 to 15 °C use 5797.-.0300.

Air 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

Airless spraying, air spraying, air-mix spraying, roller/brush application

Drying

Air drying

(at + 20 °C, 65% r. h.)

Dust-dry after approx. 1 hour, non-sticky after 3 to 4 hours, ready for re-working after approx. 2 hours, dry after 24 hours. Fully cured after 8 to 10 days.

Oven-drying

Keep the flash-off time for 30 minutes. Afterwards stoving the paint for approx. 60 minutes at an object temperature of approx. 60 °C.

Drying / cross-linking of the applied paint film requires temperatures of +15 °C or higher. The drying time decreases when the temperature is increased.

Spray data

Process	Nozzle	Pressure	Application viscosity
Airless spraying	0.23 to 0.33 mm	120 to 180 bar (material)	250 to 300 mPas ¹⁾
Air-mix spraying	0.23 to 0.33 mm	120 to 150 bar (material) 1 to 3 bar (air)	250 to 300 mPas ¹⁾
Air spraying	1.5 to 1.7 mm	4 to 5 bar	30 to 40 sec. ²⁾

1) working consistency = delivery viscosity (in mixture)

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

Packaging

30 kg

Storage

1 year after receipt.

Store in original closed container, dry and at room temperature. Protect against heat and direct sunlight.

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.

If you need the current version, please contact your Brillux consultant.

Version 8

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