Technical Data Sheet

2K Epoxy Primer 5706

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

Field of application

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

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
- after full curing/cross-linking, the paint film is physiologically safe
- overpaintable with Brillux 2K- and Synthetic Resin Paints

Technical data

Basis	Modified, cold-hardening epoxy resin
Colors	Beige, red brown, light gray, white, black
Degree of gloss	Matt
Approvals/permits	Certificate of Conformity (for contact with dry foodstuff), ISEGA-Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Prüfnummer 65619 U 25.

Technical data

Density	1.55 to 1.65 g/cm³ (in accordance with DIN EN ISO 2811)[1)]
Theoretical coverage	340 to 380 m²/kg (with 1 µm dry film thickness)[1)2)]
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 (300 to 350 mPas)
Stability	approx. 350 µm (wet film)[2)]
Salt spray test	Delamination at scribe ≤ 2 mm [3)] (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	Degree of blistering 0 (S0) [3)] (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[4)]	**Prime coat**	**Intermediate coat[5)6)]**	**Top coat[5)]**
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**	2K Epoxy Primer 5706 40 to 80 µm	If required (specified film thickness), a second layer can be applied using the corresponding primer.	2K PUR Acrylic Paint 5740, 5741, 5742, 5743 5744, 5746, 5747, 5748, 5749 40 to 80 µm
			2K PUR High Solid Paint 5730, 5731, 5732, 5733, 5736, 5737 40 to 80 µm
			Hydro 2K PUR Paint 5860, 5861, 5862, 5863 40 to 60 µm
			2K Epoxy Thick Film Paint 5767 40 to 80 µm

[4)] Generally, the substrate should be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities.
[5)] The second coating should be done within 72 hours to guarantee a sufficient intermediate adhesion. If the second coating follows after more than 72 hours, the surface should be sanded beforehand.
[6)] Before applying topcoats in intense colors, a intermediate coat in RAL 9010 (approx. 40 µm) of e.g. 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 to 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**
2K Epoxy Primer 5706 (60 µm)[8] + 2K PUR High Solids Paint 5730–5733 (60 µm)[7]	C3 L	C3 M	C3 H	C4 L	C4 M				
2K Epoxy Primer 5706 (80 µm)[8] + 2K PUR High Solids Paint 5730–5733 (80 µm)[7]	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L		
2K Epoxy Primer 5706 (80 µm)[8] + 2K Epoxy Primer 5706 (80 µm)[8] + 2K PUR High Solids Paint 5730–5733 (80 µm)[7]	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I L	C5-I M	
2K Epoxy Zinc Dust Paint 5707 (80 µm)[10] + 2K Epoxy Primer 5706 (80 µm)[8] + 2K Epoxy Primer 5706 (80 µm)[8] + 2K PUR High Solids Paint 5730–5733 (80 µm)[7]	C3 L	C3 M	C3 H	C4 L	C4 M	C4 H	C5-I/M L	C5-I/M M	C5-I/M H

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

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

Hardener

At processing temperatures above 15 °C:
EP-Hardener 5797.-.0200 (standard curing)

At processing temperatures between 5 to 15 °C:
EP-Hardener 5797.-.0300 (fast curing)

Basis Polyaminoamide

Shelf life EP-Hardener 5797.-.0200 9 months after receipt.

Shelf life EP-Hardener 5797.-.0300 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 ratio 5797.-.0200 resp. 5797.-.0300
6 : 1 weight-% (3,5 : 1 vol.-%)

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

Process

Material has to be stirred until homogenous before application.

Thinner

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.

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, e-static spraying (manual application, high-speed bell/disk), 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[9)]
Airless spraying	0.28 to 0.33 mm	120 to 180 bar (material)	100 to 130 sec.
Air-Mix spraying	0.28 to 0.33 mm	120 to 150 bar (material) 1 to 4 bar (air)	50 to 80 sec.
Air spraying	1.5 to 1.7 mm	4 to 5 bar	30 to 40 sec.
E-Static spraying (manual application)	0.28 to 0.33 mm	120 to 150 bar (material) 1 to 4 bar (air) 60 to 80 kV electrical voltage	50 to 80 sec.

Process	Speed	Voltage	Application viscosity[9)]
E-Static (high-speed bell/disk)	25 to 30 thousand rpm	70 to 80 kV	30 to 40 sec.

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

Packaging

10 kg, 30 kg, 200 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

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 22.

Brillux GmbH & Co. KG Industrielack
Otto-Hahn-Straße 14
59423 Unna
Tel. +49 2303 8805-0
Fax +49 2303 8805-119
info@brillux-industrielack.de
www.brillux-industrielack.de