

Zinc Prime Powder EP 5815

Zinc primer based on epoxy resin for a maximum corrosion protection on sandblasted steel substrates

Basis

epoxy resin

Colours

dark-grey

Gloss grade

glossy

Properties

- excellent corrosion protection properties
- high resistance to chemicals
- very good adhesion properties on sandblasted steel and passivated aluminium substrates
- very good mechanical parameters
- after full curing / cross-linking, the paint film is physiologically safe

Field of application

In combination with weather-resistant powder coating systems for all areas where long-term corrosion protection is required while the highest optical demands have to be met e.g. agricultural machines, fence systems, garage doors, gas cylinders, lawnmowers, garden furniture, sound insulation walls etc.

One-coat application is not suitable for exterior use.

Approvals / permits

Test certificate according to DIN EN ISO 12944 Part 6, corrosivity category C5 I/M long; tested in two-layer coat with Brillux Universal-Polyesterpowder 5910 (Institut für Korrosionsschutz Dresden GmbH)

Technical data

Density

2,67 ± 0,03 g/ml
(according to DIN ISO 8130-2)

Theor. coverage

Approx. 370 m²/kg
(with 1 µm film thickness)

Grain distribution

< 28 %	< 10 µm
54 %	< 32 µm
> 94 %	< 90 µm

(laser measuring instrument)

Cross-hatch

Gt 0 C (according to DIN EN ISO 2409)

Erichsen cupping test

≥ 6 mm (according to DIN EN ISO 1520)

Buchholz hardness

≥ 90 (according to DIN EN ISO 2815)

Pencil hardness

2 H (Wolf Wilborn Type 291)

Salt spray test

> 1.000 h¹⁾
(according to DIN 50021-SS)

Condensation water test

> 1.000 h¹⁾ (according to DIN EN ISO 6270-2)

Impact test

reverse: ≥ 60 ip
direct: ≥ 60 ip
(according to ASTM D 2794-69)

Labelling

see current safety data sheet

1) If overcoated with weather-resistant powder coats, the values for salt spray and condensation water tests increase to ≥ 3000 h.

Coating recommendation

Substrates ¹⁾	Prime coat ²⁾	Top coat
Steel Sand-blasted (degree of purity at least SA 2 1/2 according to DIN EN ISO 12944, Part 4)	Zinc Prime Powder EP 5815 dark-grey 60 to 80 µm	Industrial-Polyesterpowder 5900, 5901, 5902 approx. 60 µm ³⁾
		Industrial-Polyesterpowder 5903, 5905 approx. 80 µm ³⁾
		Industrial-Polyesterpowder 5904 approx. 60 µm ³⁾
		Universal-Polyesterpowder 5910, 5911 approx. 60 µm ³⁾

- 1) Generally, the substrate shall be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities, and pretreated according to the corrosion protection requirements.
- 2) In order to obtain an optimum adhesion in the case of a double-layer coating system in the powder area, the powder primer may only be precured. An object temperature of 110 - 130°C is recommended for this at a holding time of 8 to 10 minutes. If the prime coat is fully cured, adhesion problems may occur. Additionally the adhesion between the two powder layers has to be checked in a representative pilot test when using an indirect fired gas oven. Due to loaded burning residues on the primer layer the inter coat adhesion to the top coat may be reduced.
- 3) depending on colour

Process

Compatibility

Different batches or powder coat qualities cannot always be mixed / are not always compatible to one another. Surface defects such as gloss reduction, specks, crater, orange peel effect, etc., may result from incompatibility. To be sure, appropriate tests shall be carried out before application.

Application temperature

15 to 25 °C

Air humidity

< 75 % r. h.

Application

Generally, make sure the substrate is grounded properly. The fluidizing, conveying and dosing air must be free from oil and condensation water. In order to obtain a uniform coating quality, a constant fresh / recovered powder ratio should be maintained. The recovery powder portion in the circulation system should normally be less than 35 %.

Corona application

voltage:
 70 to 100 kV
 (in the case of first coat)
 40 to 50 kV
 (in the case of overcoating)

Tribo application possible

Curing conditions

Curing in combination with the top coat

duration: object temperature:
 12 min. at 185 °C

Packaging

20 kg single cardboard box
 500 kg cardboard box containing 25 polyethylene bags á 20 kg
 Further container sizes available upon request.

Storage

6 month after receipt.

Store in closed container, dry and at room temperature (max. 25 °C). Protect against heat and direct sun impact.

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 its obligation to test our products for suitability for the intended application. In addition to that, our General Terms and Conditions shall apply.

As soon as a new edition of this Technical Data Sheet is issued, the previous specifications will become invalid.

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

Version 1

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