

Super NT Corro Protect EP 5818

Universally useable zinc-free low-cure powder primer with an epoxy base with excellent corrosion protection

Basis

Epoxy resin

Color

Light gray

Gloss grade

Gloss

Properties

- very efficient curing conditions with an object temperature starting from 130 °C
- excellent corrosion protection
- high resistance to chemicals
- very good adhesion on all common metallic 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 both is required long-term corrosion protection and highest optical demands: e.g.

Construction- and agricultural machines, door- and fence-systems, garage doors, gas cylinders, lawnmowers, garden furniture, sound insulation walls, vending machines etc.

One-coat application is not suitable for exterior use.

Technical data

Density

1.56 to 1.62 g/cm³
(in accordance with DIN ISO 8130-2)

Theoretical coverage

Approx. 630 m²/kg
(with 1 µm film thickness)

Grain distribution

< 12 %	< 10 µm
42 %	< 32 µm
> 94 %	< 90 µm

(laser measuring instrument)

Cross-cut test

Gt 0 C
(in accordance with DIN EN ISO 2409)

Erichsen cupping

≥ 3 mm
(in accordance with DIN EN ISO 1520)

Buchholz hardness

≥ 80
(in accordance with DIN EN ISO 2815)

Pencil hardness

2 H
(Wolff Wilborn Type 291)

Salt spray test

> 1.000 h¹⁾
(in accordance with DIN EN ISO 9227-NSS)

Condensation water test

> 1.000 h¹⁾
(in accordance with DIN EN ISO 6270-2)

Impact test

reverse: ≥ 5 ip
direct: ≥ 20 ip
(in accordance with 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 blast-cleaned (degree of purity at least SA 2 1/2 according to DIN EN ISO 12944, Part 4) Aluminum preferably yellow chromated or a homogeneous no-rinse pre-treatment Galvanized steel preferably yellow-chromated or a homogeneous no-rinse pre-treatment	Super NT Corro Protect EP 5818 Light gray 60 to 80 µm	Super NT Polyester Powder 5920, 5921, 5922 approx. 60 µm ³⁾
		Super NT Polyester Powder 5923 approx. 80 µm ³⁾
		Super NT Polyester Powder 5904 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) 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 color

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

Depending on geometry of parts and application use corresponding coating-programs (as the case may be with utilisation of limitation of spraying current)

For application-systems without limitation of spraying current:
voltage:
70 to 100 kV
(in the case of first coat)
40 to 50 kV
(in the case of overcoating)

Tribo application

Is possible

Curing conditions

duration: object temperature:
15 to 30 min. at 130 °C
10 to 20 min. at 140 °C
8 to 15 min. at 150 °C
6 to 10 min. at 160 °C

Alternatively, the complete curing can be proceeded when curing the top coat. The primer has to be gelled beforehand (8 to 10 min. at 110 to 130 °C object temperature). The full curing has to be done in accordance to the specifications of the top coat, but at least to the curing conditions of the primer.

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 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 3

Brillux Industrial Coatings
Otto-Hahn-Str. 14
59423 Unna
Germany
Phone +49 (0)2303 8805-0
Fax +49 (0)2303 8805-119
www.brillux-industrial-coatings.com
info@brillux-industrial-coatings.com