

## Priming Powder EP 5819

**Epoxy primer for corrosion protection, for use on degassing substrates**

### Basis

Epoxy resin

### Colors

Light gray

### Gloss grade

Dull-matt

### Properties

- very good degassing-stable
- good corrosion protection
- good resistance to chemicals
- very good adhesion on all common metallic substrates
- 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 good corrosion protection and high optical demands: e.g. agricultural machines, fence systems, garage doors, gas cylinders, lawnmowers, garden furniture, sound insulation walls, also cast iron pipes, engine- and gearbox parts. Especially suitable for the coating of degassing substrates. One-coat application is not suitable for exterior use.

### Technical data

#### Density

1.48 to 1.54 g/cm<sup>3</sup>  
(in accordance with  
DIN ISO 8130-2)

#### Theoretical coverage

approx. 660 m<sup>2</sup>/kg  
(with 1 µm dry film thickness)

#### Grain distribution

< 12 %	< 10 µm
41 to 43 %	< 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 (tapetest)  
(in accordance with  
DIN EN ISO 1520)

### Buchholz hardness

≥ 90  
(in accordance with  
DIN EN ISO 2815)

### Pencil hardness

2 H  
(Wolff Wilborn Type 291)

### Salt spray test

> 500 h<sup>1)</sup>  
(in accordance with  
DIN EN ISO 9227-NSS)

### Condensation water test

> 500 h<sup>1)</sup>  
(in accordance with  
DIN EN ISO 6270-2)

### Impact test

revers: ≥ 30 ip (tapetest)  
direct: ≥ 20 ip (tapetest)  
(in accordance with  
ASTM D 2794-69)

### Labelling

See current safety data sheet.

1) On iron phosphated bonder panel. If overcoated with weather-resistant powder coats, the values for salt spray and condensation water tests increase to ≥ 1000 h.

## Coating recommendation

Substrates <sup>1)</sup>	Prime coat <sup>2)</sup>	Top coat
<b>Aluminum</b> preferably yellow- or green-chromated (in accordance with DIN EN 12487) or chromium-free no-rinse pretreatment  <b>Steel</b> preferably iron or zinc-phosphated  <b>Cast iron</b>  <b>Galvanized steel etc.</b>	Priming Powder EP 5819 light gray 60 to 80 µm	Industrial Polyester Powder 5900, 5901, 5902 approx. 60 µm <sup>3)</sup>
		Industrial Polyester Powder 5903, 5905 approx. 80 µm <sup>3)</sup>
		Industrial Polyester Powder 5904 approx. 60 µm <sup>3)</sup>
		Universal Polyester Powder 5910, 5911 approx. 60 µm <sup>3)</sup>

- 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

possible

## Curing conditions

duration: object temperature:  
15 to 25 min. at 180 °C  
10 to 18 min. at 190 °C  
6 to 13 min. at 200 °C

Due to the system color and gloss differences might occur within the curing conditions.

Since an optimal degassing result is achieved only within the specified curing conditions, a gelling of the primer is not recommended.

## Packaging

20 kg, 500 kg (25 x 20 kg).  
Further container sizes available  
upon request.

## Storage

6 months after receipt.  
Store in original 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  
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Technical Data Sheet is issued,  
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Version 1

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