

## NT Polyester Powder PE

5970 gloss  
5971 silk gloss  
5972 silk matt

**Efficient low-cure-temperature coating powder for both interior and exterior use, available in three gloss grades**



### Basis

Polyester resin

### Colors

All common color systems

### Gloss grade

5970 gloss,  
> 70 GU/60°  
5971 silk-gloss,  
50 to 70 GU/60°  
5972 silk-matt,  
20 to 35 GU/60°  
(in accordance with  
DIN EN ISO 2813)

### Properties

- enables energy saving thanks to low cure conditions
- very good weather resistance
- very high gloss and color stability
- very good adhesion on all common metallic substrates
- good corrosion protection
- high degree of surface hardness
- good to very good mechanical values
- excellent abrasion resistance
- once fully cured, the paint film is physiologically safe

### Field of application

Interior and exterior coatings meeting the highest qualitative and optical demands, e.g. agricultural machines, fence systems, garage doors, gas cylinders, lawnmowers, fire extinguishers, garden furniture, sound insulation walls, hospital beds, shower stalls, light fixtures etc.

### Approvals/Permits

**5970**  
Certificate of Conformity (for contact with dry foodstuff),  
ISEGA-Forschungs- und  
Untersuchungs-Gesellschaft mbH,  
Aschaffenburg,  
Prüfnummer 38558 U 14.

### Technical data

**Density**  
1.45 to 1.70 g/cm<sup>3</sup> <sup>1)</sup>  
(in accordance with  
DIN ISO 8130-2)

**Theoretical coverage**  
approx. 635 m<sup>2</sup>/kg <sup>1)</sup>  
(with 1 µm dry film thickness)

**Grain distribution**  
< 11 % < 10 µm  
35– 50 % < 32 µm  
> 85 % < 90 µm  
(laser measuring instrument)

**Cross-cut test**  
Gt 0 C (in accordance with  
DIN EN ISO 2409)

### Erichsen cupping

≥ 3 to 6 mm <sup>2)</sup>  
(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

Delamination at scribe ≤ 2 mm  
(in accordance with DIN EN ISO  
4628-8) on zinc phosphate iron  
panel:  
> 1.000 h  
(in accordance with  
DIN EN ISO 9227-NSS)

### Condensation water test

Degree of blistering 0 (S0)  
(in accordance with DIN EN ISO  
4628-2) on zinc phosphate iron  
panel:  
> 1.000 h  
(in accordance with DIN EN ISO  
6270-2)

### Accelerated weathering QUV-A/SE

> 1.000 h (in accordance with DIN  
EN ISO 16474-3)

### Impact test

reverse: ≥ 5 to 20 ip <sup>2)</sup>  
direct: ≥ 10 to 40 ip <sup>2)</sup>  
(in accordance with  
ASTM D 2794-69)

### Labelling

See current safety data sheet

1) Depending on color

2) Depending on gloss

## Coating recommendation

Substrates <sup>1)</sup>	Prime coat	Top coat <sup>2)</sup>
<p><b>Aluminum</b> preferably yellow- or green-chromated (in accordance with DIN EN 12487) or chromium-free no-rinse pre-treatment</p> <p><b>Steel</b> preferably iron or zinc-phosphated</p> <p><b>Cast iron</b></p> <p><b>Galvanized steel etc.</b></p>	n/a	<p>NT Polyester Powder PE 5970, 5971, 5972 60 to 80 µm<sup>3)</sup></p>

1) Generally, the substrate shall be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities (that especially applies to the use of directly fired gasovens) and pre-treated according to the corrosion protection requirements.

2) If substrate has been pre-treated accordingly.

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 %. When processing metallic powder coats, special processing instructions must be followed. Also refer to "Processing Instructions for Brillux Metallic - Powder Coats".

### 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:

5970/5971

10 to 40 min. at 160 °C

8 to 25 min. at 170 °C

6 to 15 min. at 180 °C

4 to 10 min. at 190 °C

5972

12 to 40 min. at 160 °C

10 to 25 min. at 170 °C

8 to 15 min. at 180 °C

6 to 10 min. at 190 °C

**Packaging**

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

**Storage**

6 month after receipt.  
Store in original closed container, dry and at room temperature (maximum 25 °C). Protect against heat and direct sunlight.

**Remark**

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