

# Painting Specification

Doc IN 10.04.002

Release-Date 18.03.2021

DocOwner OP-SPD



## 1 Purpose

These Instructions describe the requirements that are placed on corrosion prevention enabled by painting purchased components and construction elements and need to be kept by contractors.

If single items cannot be implemented or are unclear, it is necessary to consult the competent buyer of the client before starting production.

## 2 Paint

The two-component varnish Polyurethan (PUR) can be directly applied to the base without primer. Processable with Airless, Airmix, conventional high pressure or High Volume Low Pressure (HVLP). Processable on steel, aluminium, zinc-plated steel, stainless steel, glass-fibre reinforced plastics (GPR) and many more

### 2.1 Priming coat

Manufacturer:	PPG Industries
Product name:	PUR-Direkt 7-531 Selemix
Shade:	RAL 7035
Degree of gloss:	10 %
Curing agent:	Product code 1.959.5075 or 1.959.5070

Additives and binder to be chosen as suggested by the manufacturer. For detailed information regard the technical datasheet.

### 2.2 Finishing coat

Preferred paint supplier:	PPG Industries
Product name:	"PUR-Direkt 7-53X Selemix"
Shade:	RAL shade acc. to the order
Degree of gloss:	70%
Curing agent:	Product code 1.959.5080 or 1.959.5075 or 1.959.5070
Mixing ratio:	4:1
Dilution:	max. 5%, product code 1.191.1480

Additives and binder to be chosen as suggested by the manufacturer. For detailed information regard the technical datasheet.

### 2.3 Layer thickness

Painting needs to be covering. The following dry layer thicknesses is specified:

Minimum layer thickness of dry layer:  $\geq 60 \mu\text{m}$

### 2.4 Measurement

Measurement of the layer thickness acc. to ISO 2064.

- layer thickness of components and construction elements with a relevant surface of  $> 1 \text{ m}^2$  must be tested on at least four reference surfaces per  $\text{m}^2$  spread meaningfully on the relevant surface
- layer thickness of parts with a relevant surface of  $< 1 \text{ m}^2$  must be tested on at least eight reference surfaces per  $\text{m}^2$  spread meaningfully on the relevant surface

Per reference surface at least three measurements must be carried out.

The lowest local layer thickness on the relevant surface must not be smaller than the defined minimum layer thickness (see also item **Fehler! Verweisquelle konnte nicht gefunden werden.**).



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## 2.5 Surface

Depending on the workpiece properties, the painted surface is to have the following characteristics:

- smooth
- free from pores, bubbles and flow marks
- undamaged
- without such failures as cracks or shrinkage cavities

## 2.6 Surface repairs

- Damaged spots must be blasted clean by using a metal shot (see chapter 0).
- Border zones of coating must be polished.
- The structure of the repair coat is the same as that of the original coat.
- Damage (above all at positions that will be visible later) must be filled in.
- Luting is inadmissible at weld seams

## 3 Temperature resistant painting

### 3.1 S1 - Temperature resistant black

Manufacturer: Feycolor GmbH  
Product name: FEYCOSIL 245 - Schutzlack LTW 245  
Shade: black, semi gloss (RAL 9011)

For detailed information regard the technical datasheet.

### 3.2 S2 - Temperature resistant silver

Manufacturer: PPG Industries Lacke GmbH  
Product name: Silber 2.776.0350  
Shade: aluminium silver, semi gloss

For detailed information regard the technical datasheet.

## 4 Powder coating

### 4.1 RAL 9006

Manufacturer: TEKNOS  
Product name: INFRALIT PE 8315  
Shade: RAL 9006  
Degree of gloss: 60-80 % / 60°  
Curing agent: INFRALIT PE 8315-09

Additives and binder to be chosen as suggested by the manufacturer. For detailed information regard the technical datasheet.

### 4.2 RAL 5007, 7035, 6011

Manufacturer: TEKNOS  
Product name: INFRALIT PE 8350  
Shade: according to purchase order  
Degree of gloss: 71-85 % / 60°  
Curing agent: INFRALIT PE 8350-15

Additives and binder to be chosen as suggested by the manufacturer. For detailed information regard the technical datasheet.

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## 4.3 Layer thickness

Painting needs to be covering. The following dry layer thicknesses is specified:

Minimum layer thickness of dry layer:  $\geq 60 \mu\text{m}$

A 10% deviation from the dry layer thicknesses is admissible.

## 5 Base and pre-treatment

Depending on the material and basic system, pre-treatment of the base (grinding, etc.) must be done in conformity to the technical data sheets of the manufacturer.

- C-sheet steel < 3 mm sheet thickness must be ground
- C-sheet steel  $\geq 3$  mm sheet thickness must be ground or blasted

### 5.1 Pre-treatment

All work pieces that will be provided with corrosion prevention must be subjected to grounding respectively abrasive blasting. The blast quality needs to comply with the degree of preparation Sa 2 ½ acc. to ISO 12944-4.

## 6 Threads, fits and machined surfaces

Provided that no requirements regarding coverage of fits and machined surfaces is given in the drawing, they must be masked. After painting, masking will must be removed without residues and not painted surfaces (metallic blanc) must be preserved according to IN 10.04.001 General Delivery Specification for Purchased Parts.

Screw threads must be painted.

## 7 Processing instructions

Depending on the material and basic system, pre-treatment of the base (grinding, etc.) must be done in conformity to the technical data sheets of the manufacturer.

## 8 Drying

At drying between the single operating steps or on completion, the instructions written by the manufacturer must absolutely be kept.

## 9 Packaging

Packaging material will have to meet the requirements emanating from the properties of the goods as well as from the strains and stresses occurring during transport (e.g.: chafing marks left by belts). The contractor is responsible for choosing the correct packaging.

At any rate, the following criteria must be regarded when packing the goods:

- The coat is dry and cured.
- An adequate intermediate layer will must be used to protect the components and construction elements from damaging one another during transport.
- As for finishing coats, a foam film must be used for intermediate layers.

## 10 Other

### 10.1 Deviating information and specifications on component drawings or in the ordering text

If requirements regarding paint or powder coating are given on the drawing and in the order, the requirement of the purchase order is to be met.



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## 10.2 "Painted" specified on a drawing

Single parts only need to be primed.

## 10.3 Hint "heat resistant painting"

These surfaces must not be primed or painted. The surfaces must be preserved according to IN 10.04.001 General Delivery Instructions for Production Parts.

Chapter 2.4 must be complied with.

The heat resistant painting must be carried out when it is required according to the purchase order.

## 11 External paint shop

If the contractor outsources the activities described in these Instructions, we request the company data below. If the contractor entrusts more than one subcontractor with priming / painting, all contact data must be enclosed to the signed Painting Instructions.

Company:

Address:

Contact data:

Place, date: \_\_\_\_\_

Seal / signature: \_\_\_\_\_

Name:

