

Technical data sheet

Article No.: **12993**
 Leaflet No.: 2217
 Version: 07

POLYFLEX® PES-51-DS smooth texture thin-layer resistant to yellowing Corona Silk-matt 20

Thin powder coatings for interior use on the basis of polyester and epoxy resins with very good smooth and good opacity. Very good overbake stability in terms of gloss and yellowing.

Applications Metal Ceilings, Metal furniture, shelves elements, machine casings and many more
Colours many colours on request
Surface smooth texture
Gloss silk-matt, 15-25 gloss units (60°)

Powder properties
Particle size distribution (HELOS H1708) smaller 7 µm: 8 – 13%
 smaller 31 µm: 61 – 66%
Density 1.3 – 1.7 g/cm³ can vary depending on the colour; can be specified per colour individually on request

Material consumption g/m² = Density (g/cm³) x Film thickness (µm)

Coating thickness
 Recommended 30 – 50 µm depending on the colour (in white rather more)
 Maximum 70 µm

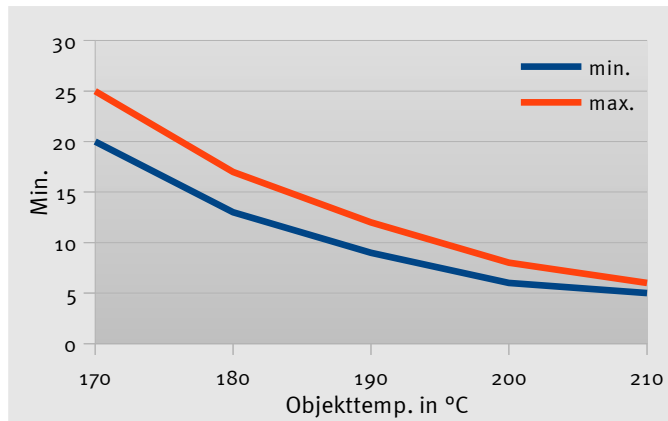
Application
 The application can be made with the usual electrostatic powder coating systems.
 To avoid any surface disturbances, we recommend not to mix this type of powder paint with and other powder paint.
 Do not burn with other powder coatings together in the same oven.

Packaging

- 20/25 kg cardboard
- 500 kg Octobox
- 450/500 kg Big Bag

Other packaging variations are available on request.

Baking diagram Curing time recommendation: 13 min by 180 °C object temperature



Curing conditions:
 210°C 5 min. hold time
 200°C 6 min. hold time
 190°C 9 min. hold time
 180°C 13 min. hold time
 170°C 20 min. hold time

Support

Various metals, but primarily as top coat on a KTL pre-treated surface. The support to be coated has to be free of oil, grease and oxidation products. Under exposure to corrosion, we recommend the following pre-treatments:

Aluminium Apply a yellow, green or transparent chromating pre-treatment, an equivalent chrom free pre-treatment or a thin layer of anodizing coat.

Steel/Iron Apply at least an iron or preferably a zinc-phosphate coating.

The pre-treatment can both be applied with dipping or spraying methods.

Physical properties

tested on:

steel sheet 0.8mm ST1405
double-pickled V1094

Film thickness
30 – 50 µm

Cross cut test GT 0
(DIN ISO 2409)

Mandrel bending test < 5 mm
(DIN ISO 1519)

Impact test front > 5 Nm (~44 inchpound)
ASTM D 2794 reverse > 2.5 Nm (~22 inchpound)

Erichsen cupping > 5 mm
(DIN ISO 1520)

Buchholz hardness > 90
(DIN ISO 2815)

Resistance

tested on:

iron phosphate steel sheet

Condensation water test 500 h no bubble building
DIN ISO 6270 Infiltration on the scratch track under 1 mm

Salt spray test 240 h no bubble building
DIN ISO 9227 Infiltration on the scratch track under 1 mm

Post treatment of coated parts

To print, label, foil laminating, over coating and any other post-treatment, some preliminary testing is recommended. For packaging, only use appropriate plasticizers free materials. Condensation must be avoided.

Repairs

For repairs (conveyors hangers touch ups) the repair kit, Art. No 12155 is available

Storage

Storage instruction: In the original containers, store in a cool and dry environment by max. 25° C. No direct sun exposure.

Shelf life 18 months from the date of production under the mentioned conditions.

Safety recommendations

Under explosion limit 40 g/m³

Further information are to find in the safety data sheet and the CEPE booklet „Safe powder coating“ and „Results of experimental toxicology study on thermosetting powder coatings“.

Comments

The information on this technical data sheet relative to the properties and application of the product in question are made on hand of our knowledge, development and practical experience. Because of the multiple possible applications, it is impossible for us to present them all in detail. Our technical consultants are at your disposal for any question you might have. Furthermore, our general sales and delivery conditions apply.

This technical data sheet is revised periodically. If necessary, our sales department will confirm the validity of this document.



KARL BUBENHOFER AG, Hirschenstrasse 26, CH-9201 Gossau SG
Tel. +41 (0)71 387 41 41, Fax +41 (0)71 387 43 05, www.kabe-farben.ch