



Technical data sheet

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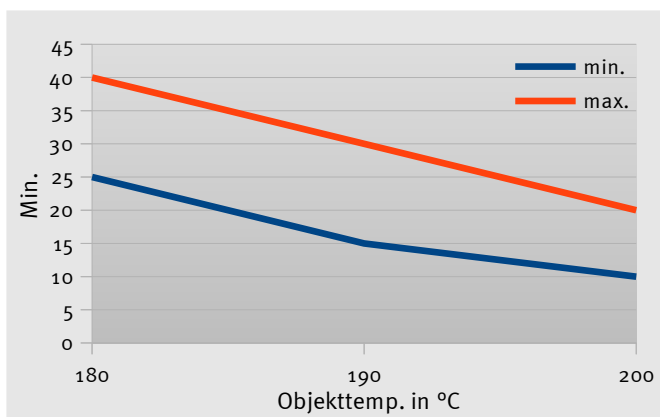
POLYFLEX® PES-140-SD smooth highly weather resistance Tribo / Corona gloss 90

Powder coating for highly weather resistant coatings for use on façades based on polyester resin with excellent light and weather resistance, good flow and very good opacity. The weather resistance compared to standard façade powder is much higher. Cleaning cycles for façades can be extended. Stabilized against discolouration and burning gas-fired curing ovens directly.

Applications	Metal façade, Aluminium profiles, sun protection systems, windows, doors, gates and many more
Colours	Many colours with a few restrictions (due to pigments offer)
Surface	smooth
Gloss	gloss, 85-95 gloss units (60°)
Powder properties	<p>Particle size distribution smaller 29 µm: 40 – 47 % <small>(HELOS H1708)</small> smaller 122 µm: 98 – 100%</p> <p>Density 1.4 – 1.7 g/cm³ can vary depending on the colour can be specified per colour on request</p>
Material consumption	$\text{g/m}^2 = \text{Density (g/cm}^3\text{) x film thickness (}\mu\text{m)}$
Coating thickness	<p>Recommended 60 – 90 µm depending on the colour (white rather more 100 µm)</p> <p>Maximum 120 µm</p>
Application	<p>The application can be made with the usual electrostatic powder coating systems.</p> <p>To avoid any surfaces disturbances, we recommend not to mix this type of powder with any other powder paint.</p>
Packaging	<ul style="list-style-type: none"> - 20/25 kg cardboard - 500 kg Octobox - 450/500 kg Big Bag <p>Other packaging variations are available on request.</p>

Baking diagram

Curing time recommendation: 10 min. at 200°C object temperature



Curing conditions:
 200°C 10 min. hold time
 190°C 15 min. hold time
 180°C 25 min. hold time

Substrates

Different metals, however mainly on pre-treated aluminium or hot-dip galvanized or powder coated or anti-corrosion dip-coated steel. The support to be coated has to be free of oil, grease and oxidation products. Under exposure to corrosion, we recommend the following pre-treatment:

Aluminium a suitable chemical pretreatment
Steel/Iron iron or zinc phosphating

Physical properties

tested on:

Aluminium plate 0,8 mm AlMg1
H14 chromate

Film thickness
60 – 90 µm

Cross cut test GT 0
(DIN ISO 2409)

Mandrel bending test ≤ 5 mm*
(DIN ISO 1519)

Impact resistance front ≥ 2,5 Nm* (~22 inchpound)
ASTM D 2794 reverse ≥ 2,5 Nm* (~22 inchpound)

Erichsen cupping ≥ 5 mm*
(DIN ISO 1520)

Buchholz hardness ≥ 80 (*) cracks; no peeling with adhesive tape,
(DIN ISO 2815) with the naked eye

Resistance

tested on:

Aluminium plate 0,8 mm AlMg1
H14 chromate

Condensation water test 1000 h no bubble building
DIN ISO 6270 Infiltration on the scratch under 1 mm

Salt spray test 1000 h no bubble building
DIN ISO 9227 Infiltration on the scratch under 1 mm

Post-treatment of coated parts

To print, to paste, to label, to laminate with film, over-coating and other post-treatments, 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

Lower explosive limit please refer to the safety data sheet

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 concerned 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 71 387 41 41, Fax +41 71 387 43 05, www.kabe-farben.ch