

**Type of coating** PF - POLYESTER POWDER COATINGS QUALICOAT



P-1381

**Color** RAL 9016  
**Symbol** PF112/0/3118/07  
**Surface** Smooth  
**Gloss level** Semi-gloss

**Characteristics**

- Outdoor, architectural application
- Powder coating approved by QUALICOAT
- High weather resistance
- High UV-light resistance
- High color stability under various curing conditions
- High covering power
- Decorative and protective effect
- High mechanical resistance

**Applications** Metal facades, aluminum profiles, windows, doors, gates and frames, etc.

**Powder properties**

<b>Particle size (Malvern)</b>	Fine powder suitable for electrostatic spray (corona) and tribocharging (tribo)
<b>Density (g/cm³)</b> ISO 8130-2	1,598
<b>Theoretical coverage (m²/kg)</b>	~10 by the film thickness 60 µm and 100 % use of powder coating.
<b>Storage stability</b>	24 months from the date of production, in the original, unopened package, keep away from heat sources, in the temperature of 5 – 25°C, protect from moisture. No direct sun exposure. The product should be stay at ambient temperature (paint shop) 12h before use.

<b>Coating film</b> tested in lab conditions on: chromated aluminium panel 0,8 mm AlMg1	<b>Thickness</b> ISO 2808	recommended 60-90µm
	<b>Gloss (60°)</b> ISO 2813 <sup>1</sup> VISUAL <sup>2</sup>	70 ±7 GU
	<b>Cross cut</b> ISO 2409	0
	<b>Mandrel bending</b> ISO 1519	<5 mm
	<b>Erichsen cupping</b> ISO 1520	>5 mm
	<b>Impact resistance</b> ISO 6272-1	front >50 kg/cm reverse >50 kg/cm
	<b>Buchholz hardness</b> ISO 2815 <sup>3</sup>	>80
chromated aluminium panel 0,8 mm AlMg1	<b>Pencil hardness</b> ISO 15184 <sup>3</sup>	3H
	<b>Salt spray test</b> ISO 9227	1000 h no bubble
	<b>Accelerated weathering test (UVB-313)</b> ISO 16474-3	300 h, gloss retention >=50%

(1) applies to smooth and no metallic coatings film  
(2) applies to structural and metallic coatings film  
(3) not applicable structural coatings film

Surface pretreatment	<ul style="list-style-type: none"><li>- The overall quality of the coating film depends on the type and quality of the pretreatment.</li><li>- Surfaces must be dry, degreased and free from rust and other contaminants.</li><li>- In order to improve coating adhesion to the surface and improve resistance it is recommended: aluminium - chromating, chrome-free pretreatment or anodic pretreatment. steel and galvanized steel - individual choice of surface pretreatment (e.g. phosphating).</li><li>- However, in order to achieve optimum results, you must follow the instructions and recommendations of the pretreatment material manufacturer.</li></ul>												
Application	<ul style="list-style-type: none"><li>- Electrostatic gun - corona (recommended voltage - 60 kV) or tribo gun.</li><li>- Application parameters depend on the geometric shapes of the detail and the film thickness to be reached.</li><li>- Responsibility for the correct application parameters lies on the coating applicators.</li><li>- Despite careful production methods, slight deviation of color and effect between the different manufacturing batches may occur (typical for powder coatings).</li><li>- Various application parameters may cause color/effect changes.</li><li>- Proper grounding of application equipment and coated elements helps to keep repeatability of the obtained color/effect.</li><li>- It is recommended to do the entire order on the same equipment, with the same application parameters</li><li>- Not be mixed with other powder coatings.</li><li>- Control the air speed during application of powder coatings.</li><li>- Keep the appropriate distance: the gun - coated elements.</li><li>- Keep a uniform thickness of coating.</li></ul>												
Curing conditions	<ul style="list-style-type: none"><li>- Curing time recommendation in a convection oven: <b>180°C/15min.</b> (object temperature)</li></ul> <p>The parameters for optimal curing of the coating are as follows:</p> <table><tr><td>Object temperature [°C]</td><td>minimal [min.]</td><td>maximal [min.]</td></tr><tr><td>200</td><td>10</td><td>15</td></tr><tr><td>190</td><td>12</td><td>20</td></tr><tr><td>180</td><td>15</td><td>25</td></tr></table> <ul style="list-style-type: none"><li>- Must be strictly observed parameters of stoving the coating film to ensure that the full mechanical and chemical properties.</li><li>- Suitability of the product for stoving in gas ovens and radiant ovens should be verified - may be a significant difference in color - perform a comparative test with the standard color (please contact us for details).</li></ul>	Object temperature [°C]	minimal [min.]	maximal [min.]	200	10	15	190	12	20	180	15	25
Object temperature [°C]	minimal [min.]	maximal [min.]											
200	10	15											
190	12	20											
180	15	25											
Approvals	<ul style="list-style-type: none"><li>- <b>QUALICOAT P-1381, Class 1, Gloss category 2 (semi-gloss).</b></li><li>- <b>"Product approved by QUALICOAT. QUALICOAT is a quality label for licensed coaters".</b></li><li>- <b>The powder coatings are in compliance with 2011/65/EC and 2015/863/EC (so called ROHS).</b></li><li>- Heavy metal and TGIC free.</li></ul>												
Technical recommendations	<ul style="list-style-type: none"><li>- In the case of cleaning powder coated surfaces it is necessary strict compliance with the Technical recommendations 01: Cleaning of powder coated surfaces.</li></ul>												
Comments	<ul style="list-style-type: none"><li>- To print, to glue, to label, to laminate with foil, over-coating or any other post-treatment, some preliminary testing is recommended.</li><li>- Powder-coated details should be packaged after being completely cooled down to ambient temperature, into appropriate packaging materials previously tested by the user.</li><li>- Packaged details should be stored under cover to avoid condensation, which may result in traces on the finished coating.</li></ul>												
Safety Data Sheet	POLYESTER POWDER COATINGS PF - TI												
Edition / date	2.0 / 2021-04-22												

The above values may vary depending on the type of surface pretreatment, color, gloss, texture, etc.

All informations included in this card are based on our experience and actual knowledge and do not release the user from carrying out their own tests. If in doubt please contact us for details. Having no influence on the use and application conditions, we can take responsibility only for the quality of any the product and ensure that it fits to our standards.

This Technical Data Sheet is revised periodically. EKO-COLOR reserves the right to change specifications without notice.

If necessary, our sales department will confirm the validity of this document.