OXYPLAST BELGIUM N.V./S.A.

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OXYPLAST POLYESTER PE50
A TGIC-free architectural powder coating

DESCRIPTION	**OXYPLAST PE50** is a TGIC-free polyester powder coating especially developed for architectural applications.

SPECIFICATIONS	**OXYPLAST PE50** complies with the specifications of QUALICOAT (13th Edition, 1st September 2012) for standard durable coatings for architectural applications on aluminium:	
	QUALICOAT certification:	Class 1 (standard outdoor durability)
		Category 3 (60° gloss: 71 - 100%),:
		Approval number: P-0081 (metallic colours included)
		P-1142 (metallic colours not included)

PROPERTIES OF THE POWDER	• **Density (g/cm³)**	(ISO 8130-2:1992) 1,23 - 1,65 (depending on colour)
	• **Particle size**	Optimized for electrostatic applications and in function of the coating aspect.
	• **Gel time 180 °C**	(ISO 8130-6:1982) 140 - 200 s
	• **Storage**	Dry, at max. 25 °C: at least 3 years
	• **Application**	With Corona gun / Layer thickness: 60 - 80 µm (Powders having TR in the code can also be applied with tribo guns)
	• **Curing schedule**	10 min. at 180 °C (metal temperature)
		5 min. at 200 °C (metal temperature)
		18 min. at 170 °C (metal temperature)
		Preferably not above 200 °C (metal temperature)

MECHANICAL PROPERTIES OF THE COATING	• **Substrate**	Chromated aluminium (0.6 mm), degreased	
	• **Curing schedule**	10 min. 180 °C (metal temperature)	
	• **Layer thickness**	(ISO 2360:1982)	60 - 80 µm
	• **Gloss**	60° (ISO 2813:1994)	70-95 %
	• **Adhesion**	(ISO 2409:2007)	Gt = 0
	• **Buchholz hardness**	(ISO 2815:1973)	≥ 80
	• **Pencil hardness**	(ASTM D3363-00)	H - 2H
	• **Clemen hardness**	(ISO 1518:1992)	> 3 kg
	• **Erichsen**	(ISO 1520:1993)	≥ 5 mm
	• **Impact (reverse)**	(ISO 6272:1993)	≥ 25 kg.cm
	• **Cylindrical mandrel**	(ISO 1519:1973)	diameter 5mm: no cracks

ANTI-CORROSIVE PROPERTIES	For obtaining optimal adhesion and corrosion protection, a proper surface pre-treatment has to be applied, depending on the substrate:

o Steel (indoor application)	: iron phosphatation
o Steel (outdoor application)	: zinc phosphatation, or better: tri-cationic phosphatation
o Hot-dip galvanized steel	: chromatation, or better: tri-cationic phosphatation
o Metallisation	: –
o Aluminium	: chromatation (DIN 50939) or Qualicoat-approved chrome-free pre-treatment

FUNCTIONAL INFORMATION

- **Building materials**

  OXYPLAST PE50 is compatible with the standard building materials.

  For more information, refer to OXYPLAST BELGIUM.

- **Mastics/Sealants**

  Before the application of a sealant, the coating needs to be degreased. Some degreasing agents may affect the gloss and/or the aspect of the coating.

  An efficiënt degreasing, without affecting the aspect of the coating, is obtained with Promanté "Foam Cleaner" (or an equivalent product).

  A good adhesion between the OXYPLAST PE50 coatings is obtained with the Promanté "X-Treme Sealer" (or an equivalent product) for the seals, and with Promanté "Constru Fix" (or an equivalent product) for the gluing.

  For more detailed information, refer to OXYPLAST BELGIUM.

- **Storage of finished parts**

  OXYPLAST BELGIUM advises to pack finished parts in such a way that aspiration is possible, in order to prevent local condensation.

  Furthermore, OXYPLAST BELGIUM advises to store packed pieces in a dry room, in which contact with direct sunlight is avoided.

  In the event of storage of finished pieces in poorly ventilated packing, in extreme cases, under the influence of condensation and direct sunlight, local discoloration of the coating may occur for dark colours.

  This discoloration can be undone by locally heating the surface of the pieces for a short time to approximately 150 °C. A paint stripper, gas burner for shrink foil or a powerful hairdryer can be used for this purpose. This treatment will not affect the aspect of the coating.

This information is given in good faith. A warranty, expressed or implied, cannot be supplied as results may vary depending on application conditions.