



DAI PHU CO.,LTD

Lot No: D2/1-D3/1, Road 1B, Vinh Loc industrial Park, Binh Tan

District, Hochiminh City, Vietnam

Tel : (84 -8) 3765 2522 (4lines) – 5 425 0611 – 5 425 0612

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ISO 9001:2008

OXYPLAST PR61 / DP61, DP610 - A SUPERDURABLE POLYESTER POWDER COATING

PROVISIONAL DATA SHEET

DESCRIPTION

OXYPLAST PR61 / DP61, DP610 is part of a new range of polyester powders for architectural applications, providing longer durability and outstanding UV resistance compared to the classic coating OXYPLAST PR29.

OXYPLAST PR61 / DP61, DP610 meets the new Qualicoat requirements for “SUPERDURABLE” powders under the QUALICOAT CLASS 2 requirements.

PROPERTIES OF THE POWDER

Melting range (Kofler)	: 75 - 115 °C
Specific gravity (DIN 55990/3) White	: 1.35 – 1.65
Particle size distribution (Laser Diffraction) (DIN55990/2, air flow sieve)	
% \geq 100 μ	: 1 – 5
% \geq 32 μ	: 55 – 65
Gel time 180 °C (DIN 55990/8)	: 115 - 125 seconds

APPLICATION SCHEDULE

OXYPLAST PR61 / DP61, DP610 can be applied by electrostatic spraying using classic devices providing a negative tension of 60 - 80 kilovolts.

The curing process will occur in a suitable convection oven.

Curing cycle: 10 - 12 minutes at 200 °C (Metal temperature)

PROPERTIES OF THE COATING

The general properties of **OXYPLAST PR61 / DP61, DP610** are determined on chromated Aluminium (DIN 50939).

If the product is placed in the environment near the sea, it must be coated with a primer before being coated with OXYPLAST PR61 / DP61, DP610

With wrinkle, they are only warranted if they were coated with a primer.

For other substrates, in order to obtain optimal adhesion and corrosion resistance, it is advised to apply following pretreatments :

For Steel : Zinc or Tricationic Phosphatation

For Galvanized Steel : Chromate or Tricationic Phosphatation

OPTICAL AND MECHANICAL PROPERTIES OF THE COATING

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All mechanical properties are determined on correctly pretreated Aluminium panels at a coating minimum thickness of 60 microns for smooth surface, minimum thickness of 60-75 microns for sanding surface (the thickness depends on the sanding surface)

OXYPLAST PR61 / DP61, DP610	PROPERTIES OF THE COATING
Curing cycle	: 10 – 12 minutes/200 °C
Gloss level, ISO 2313.60°: Category 3	: 10 – 90%
Film Thickness	
The smooth surface	: 60 – 80 microns
The sanding surface	: 60 – 90 microns (depends on the surface)
Adhesion, ISO 2409: 1992	: Gt = 0
Reverse Impact, ECCA T5: 1985, QUALICOAT CLASS 2 (N.m)	: minimum 2.5
Erichsen Cupping, ISO 1520: 1973, QUALICOAT CLASS 2 (mm)	: minimum 5
Cylindrical Bending, diameter 5 mm, ISO 1519: 1973, QUALICOAT CLASS 2	: no disbonding
Buchholz Hardness, ISO 2815: 1973	: minimum 80
Pencil Hardness, Wolff & Wilborn	: ≥ H
Persoz Hardness, NF.T.30016 (s)	: > 250 seconds
Taber Abrasion, ASTM D-1044, wheel CS10, 10 N, 1000 revs. - Loss of weight (mg)	: < 30

WEATHERING, UV RESISTANCE, DURABILITY

Florida Exposure:

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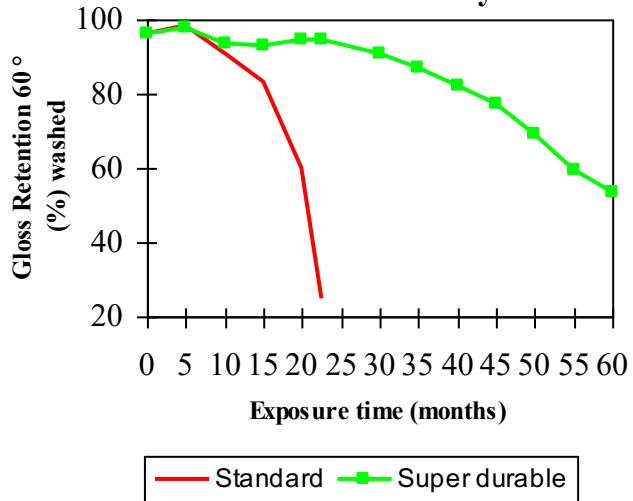
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OXYPLAST PR61 / DP61, DP610 is the most recent development in the field of outdoor durable powder coatings. **OXYPLAST PR61 / DP61, DP610** shows a superior durability compared to the classic architectural polyesters. Long term Florida exposure tests, clearly demonstrate the outstanding resistance of superdurable powders.

FLORIDA PERFORMANCE 45° SOUTH Superdurable PR61 RAL 8014 versus standard Polyester



Accelerated weathering DIN 53231: 1991

SUNTEST QUALICOAT 7th Edit. Feb. 1994

Duration : 1000 hours
 Gloss reduction, ISO 2813 QUALICOAT CLASS 2 : < 10%
 Delta E, DIN 6174 : lower than 50% of the limit values
 Prescribed in TABLE 2 (QUALICOAT) :

RAL	OXYPLAST PR61 / DP61, DP610
3005	< 2.5
5010	< 2.5
9010	< 1.0

UV and condensation resistance ASTM G53:

OXYPLAST PR61 has been tested in the accelerated weathering device.

It shows a resistance to UV light and condensation which is at least 3 times longer than for Standard Polyester coatings, as can be seen in TABLE hereafter.

QUV A340; exposure 8 hours; condensation 4 hours

RAL	Exposure Time	Delta E	Gloss Retention
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	(Hours)	(%)	
3005	1000	1.23	99.4
3005	2000	2.29	98.6
3005	3000	4.00	93.4
5010	1000	0.73	98.8
5010	2000	0.95	97.3
5010	3000	2.00	94.6
9010	1000	0.58	98.8
9010	2000	0.48	100.0
9010	3000	0.50	100.0

Resistance to Acetic Acid Saltspray ISO 9227: 1990

(1000 hours) : no change, no undercutting at scratch.

Resistance to SO₂ (Kesternich) ISO 3231: 1993

(0.2 l SO₂ - 24 cycli) : no colour change, no softening, blistering or loss of adhesion.

FUNCTIONAL DATA

Mortar resistance : No loss of adhesion or surface marring from mortar pats after 24 hours at 38 ± 3 °C at 95 ± 5% relative humidity as stated in BS 6496, Part 4.8: 1984 and ASTM C207: 1985 (QUALICOAT).

Hygiene Criteria : Odourless & disinfectable.

Chemical resistance:**OXYPLAST PR61 / DP61, DP610** is resistant to a range of acids, alkalis and organic materials.

Please consult OXYPLAST BELGIUM.

Building Materials : **OXYPLAST PR61 / DP61, DP610** is compatible with normal building materials.

For more information, refer to OXYPLAST BELGIUM.

Mastics/Sealants : Refer to OXYPLAST BELGIUM for detailed information.

CLEANING AND MAINTENANCE

Surfaces coated in **OXYPLAST PR61 / DP61, DP610** should be cleaned at regular intervals. The interval will depend on the environment but it should not exceed 18 months. In harsh or Nmarine environments cleaning should occur at intervals of not more than 3 months.

A remedial system is available for on site repair - Refer to OXYPLAST BELGIUM for details.

SERVICE

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A comprehensive laboratory and field based technical back-up service is available to ensure that the maximum benefit is obtained from the use of **OXYPLAST PR61 / DP61, DP610**.

All the information given in this Data Sheet is the result of our research work and experience. It is given in good faith and with every belief in its accuracy but cannot be considered as a formal warranty. In accordance with OXYPLAST BELGIUM policy of product development, this specification is subject to change without notice.