syntha pulvin

a brand of The Sherwin-Williams Company

Technical Data Sheet: QD
Date: Nov-21

Qualicoat Approved Architectural Range

Certificate Nos: P-0656, P-0676, P-1084, P-1097
Product tested and approved for the quality mark

Introduction

Inver Powder Coatings' Class 1 'Qualicoat' approved range of Architectural Polyesters are recommended for use on aluminium exterior situations where the 'Qualicoat' specification applies. Inver Powder Coatings' attention to formulation and particle size control ensures optimum transfer efficiency, enabling applied costs to be better controlled.

Colour

Wide range of RAL colours available and specials manufactured to order

Gloss

Three levels available (all measured at an incident angle of 60°)

Category 1:	< 30 +/-5 units
Category 2:	31 – 70 +/- 7 units including "BR" Metallics
Category 3:	71 – 100 +/- 10 units

(Permissible variation from the nominal value)

Film Properties

Meets the following criteria:

Adhesion	ISO2409:1992 (2mm)	Gt 0
Indentation	ISO2815:1973	Min 80
Mandrel bend	ISO1519:1995 (5mm)	No cracking or detachment
Impact	ASTM D2794: 1969 (2.5Nm)	No cracking or detachment
Kesternich	ISO3231:1993 (0.21.S02-24 cycles)	Max 1mm corrosion creep from scribes
Acetic Acid Salt Spray	ISO9227:1990 (1000hrs)	Max 16mm2 over 10cm length of scribe
Machu	Qualicoat method B1 (j)	Max corrosion creep 0.5mm
Accelerated Weathering	ISO1 1341-1994 Luminous intensity 550 W/m2 (290-800Nm)	Loss of gloss max 50% of original value. Colour change as defined in Qualicoat table 2
Weathering	Florida 5° south facing 1 year (ISO2810:1974)	Residual gloss 50% of original (min)
Resistance to Mortar	ASTM B3260 (24hrs)	No residue after removal
Resistance to boiling water	2 hrs deionised water or 1 hr pressure cooker	No defects or detachment
Condensed water	DIN50017:1982 (1000 hrs) Max 1mm under film creep	No blistering
Solvent (xylene)	30 secs	Rating 3-4
Sawing, Milling, Drilling		No cracking or chipping
Cupping Test	ISO1 520: 1995 5 mm min	(typically 7-9 min)

Substrate used for these tests was aluminium alloy AA5005-H24 with a thickness of 0.8mm pre-treated according to DIN 50939: 1988

Specific Gravity

1.4 – 1.8 depending on colour, gloss etc

Coverage

9 – 12 sq. m/kg @ 50 microns (100% utilisation assumed) depending on colour and gloss

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Film Thickness

Minimum 60 microns

Minimum Curing Conditions (Minutes at object temperature)

	Full Gloss Cat 3 & Semi Gloss Cat 2	Matt Cat 1
210°C	5 mins	8 mins
200°C	6 mins	10 mins
190°C	8 mins	13 mins
180°C	10 mins	Not recommended
170°C	13 mins	Not recommended

Maximum Cure Conditions

	Full Gloss Cat 3 & Semi Gloss Cat 2	Matt Cat 1
210°C	5-15 mins	8-15 mins
200°C	6-16 mins	10-20 mins
190°C	8-18 mins	13-23 mins
180°C	10-20 mins	Not recommended
170°C	13-23 mins	Not recommended

Storage

Store in dry, cool conditions, preferably below 30°C. Shelf life under these conditions will be approx 24 months.

Pre- treatment

Conversion coating is essential in all cases. A chromate or chromate-free pretreatment approved by Qualicoat or GSB should be used prior to powder coating.

Application Guidelines

Inver UKs' 'Qualicoat' approved powder coatings are suitable for use with all known electrostatic powder spraying equipment designed for thermosetting powder application.

Individual Product Information

Reference Number	QG810145SG
Description	RAL 7011 IRON GREY POLYESTER SEMI GLOSS
Gloss Level (60°)	65-75
Specific Gravity	1.36 +/-0.10
Stoving Schedule	10 MINS @ 180C Metal Temperature
Film Thickness	60-80 microns
SDS No:	

Health & Safety

We recommend all users of powder coatings to refer to the Code of Safe Practice: Application of Powder Coatings by Electrostatic Spraying (published by the British Coatings Federation of Great Britain Ltd) and our appropriate Health & Safety Data Sheet.

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