

GENERAL FEATURES

This thermosetting powder contains polyester resins cured with fit curing agents specially selected for their excellent resistance to UV radiation and outdoor weathering. The powder forms a decorative film with enhanced outdoor resistance. The Inverbond-Q were created for coating aluminium components used in architecture and for coating galvanised steel and have all the necessary requirements for approval of the GSB specification (I.152g). The Inverbond-Q Cat. 3 have also all the necessary requirements for approval of the Qualicoat class 1 category 3 (licence P-0554) specification. The metallic effect pigment is fixed on the powder by means of a bonding process, thanks to which is possible to achieve the best results in terms of application and reproducibility for the metallic effect powders. The problems of separation in the powdercloud during the application process, typical of dry blend products, are so eliminate, with positive effects on the colour constancy.

APPLICATION

Due to its special content the product is particularly suggested for exterior coating. To avoid variation of the metallic effect due to repeated surface rubbing, metallic pigment release on the surfaces in contact with the coating, it is suggested a double coat with transparent powder.

ADVISED CYCLES

The surface to be coated must be cleaned from oils, grease or flash rust. If particular resistance to corrosion or humidity is required, it is suggested the following pretreatment of the surface:

for aluminium	chromate conversion according to DIN 50939
for steel	sand blasting or/and iron or zinc phosphatising
for galvanised steel	chromatising

HANDLING AND STORAGE

Store at temperatures lower than 30°C; higher temperatures may damage the powder by causing undesired alterations or blobs. Storage life in original package: 18 months.

TECHNICAL DATA

Code	Int. Method	Range	Ref. Method
P/CL092	Calc. specific gravity(kg/l):	1.485 - 1.546	
P/CL120	Non volatile content(w/w)(%) 3h at 105 °C	100.0 - 100.0	UNI EN ISO 3251
P/CL125	Non volatile content(v/v)(%)	100.0 - 100.0	
P/CL140	Calculations of VOC (gr/l): (100-Non volatile%-Water%)xSGx10	00 - 00	
P/CL143	1µm Theor. spread.rate	647 - 673	

Code	Int. Method	Range	Ref. Method
	(m2/kg):		
P/CL210	Water content (%):	0.0 - 0.0	
P/YC060	Particle size dist. <32µ(%):	38 - 42	
P/YC120	Particle size dist. <63µ(%):	78 - 82	
P/CS010	Dry film thickness(microns):	60 - 80	UNI ISO 2178

WAYS OF APPLICATION

Apply with guns with negative terminal (60/80KV) automatically or manually. The tribo application depends on the specific plant and must be previously evaluated. It is advised to apply the product in layers with the thickness of 60-80 microns and to stove at 190°C for 15 minutes (temperature of the support). For stoving of the Polyester-Q products it is possible to use the following curing windows:

7-11 minutes	200°C (temperature of the support)
10-20 minutes	190°C (temperature of the support)
15-27 minutes	180°C (temperature of the support)
20-40 minutes	170°C (temperature of the support)

For stoving use the given indications.

TECHNOLOGICAL FEATURES AND RESISTANCE TESTS

The support used	aluminium sheet
Thickness	60 microns
Stoving	15 minutes at 190°C

The chemical resistance test was carried out on chromatised aluminium.

Code	Int. Method	Range	Ref. Method
P/CM010	Buchholz indentation test :	more than 90	UNI EN ISO 2815
P/CM040	Erichsen cupping test (mm):	more than 5	UNI EN ISO 1520
P/CM050	Direct impact test (cm.Kg):	more than 25	UNI 8901
P/CM051	Opposite impact test(cm.kg):	more than 25	UNI 8901
P/CM080	Cylindrical mandrel size 4 does not break :		UNI EN ISO 1519
P/CM100	Crosscut adhesion (2mm)(GT):	00	UNI EN ISO 2409
P/CM230	Resistance to humidity : (Humidity test)	1000 hours later no blistering, indenta-	UNI 8744

Code	Int. Method	Range	Ref. Method
		tion along the cross of max 1mm	

NOTE TO USER

The information contained in this document while based on evidence and reliable methods can not be considered exhaustive.
This information are current to the date of issuance of this data sheet, therefore is under user's responsibility to verify that the data provided on this sheet are current to the date of the product.
The user, under its own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product, cause the respect of the provisions is not under producer's direct control.
The manufacturer does not guarantee nor assume any liability or responsibility for whatsoever harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.