

Technical Data Sheet

- BOND PE/P BT AL serie 224

GENERAL FEATURES

This thermosetting powder contains polyester resins, cured with fit curing agents.

The product forms a level hard film with good resistance to mechanical damage and to yellowing caused by the chain stop during stoving.

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 powder-cloud 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 and appearance alteration due to water or chemicals, it is suggested a double coat with transparent polyester or polyurethanic 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 steel	sand blasting or/and iron or zinc phosphatising
for galvanised steel and aluminium	chromatising

Mixed cycles:

If it is needed, it is possible to carry out mixed cycles by using liquid primers in combination with the Polyester Powder.

Therefore we advise:

- electrophoretic primer after phosphatising or
- spray water-borne primer after sand blasting and successive stoving.

As for the spray water-borne primer, it must be noted, that it was specially formulated in order to resolve the problem of adhesion to the support or/and among different layers, especially if durability and outdoor resistance are required.

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):	1.25 - 1.650	
P/YC060	Particle size dist. <32µm (%):	36 - 46	
P/YC120	Particle size dist. <63µm (%):	74 - 91	
P/CL143	1µm Theor.spread.rate (m2/kg):	540 - 780	

WAYS OF APPLICATION

Apply with automatic or manual guns with negative terminal (60/80KV).

The tribo application depends on the specific plant and must be previously evaluated.

It is advised to apply in layers with the thickness of 60-80 microns and to stove at 160°C for 20 minutes (temperature of the support).

For stoving the Polyester BT metallic effect products it is possible to use the following combinations of time and temperature: 6-11 minutes at 190°C (temperature of the support)

6-11 minutes	190°C (temperature of the support)
10-15 minutes	180°C (temperature of the support)
15-30 minutes	170°C (temperature of the support)

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20-40 minutes

160°C (temperature of the support)

For stoving use the given indications.

TECHNOLOGICAL FEATURES AND RESISTANCE TESTS

The support used	UNI sheet
Thickness	60 microns
Stoving	20 minutes at 160°C
Appearance and levelling	good

The chemical resistance test was carried out on zinc phosphatised steel.

Code	Int. Method	Range	Ref. Method
P/CM010	Buchholz indentation test :	more than 90	UNI EN ISO 2815
P/CM181	Pendulum-rocker hardness : Persoz pendulum	more than 300	UNI EN ISO 1522
P/CM040	Erichsen cupping test (mm):	more than 5	UNI EN ISO 1520
P/CM050	Direct impact test (cm.Kg):	more than 25	ASTM D 2794; ISO 6272-2:2002
P/CM051	Reverse impact test(cm.kg):	more than 25	ASTM D 2794; ISO 6272-2:2002
P/CM170	Conical mandrel : Bend test	maximum 10 mm	UNI EN ISO 6860
P/CM100	Crosscut adhesion (2mm)(GT):	00	UNI EN ISO 2409
P/CM190	Salt fog test :	1000 hours later - indentation along the cross of 3-6 mm	UNI ISO 9227

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.