

Technical Data Sheet

P.21 series polyurethane Colore®

The Information provided in this data sheet are generic for Colore® P.21 series. For further detail concerning specific products belonging to P.21 series, please contact us.

Description

Colore® P.21 thermosetting powder coating formulated with saturated hydroxyl polyester resin, reticulated with polyisocyanate and light-resisting pigments. Film obtained after product's polymerization owns excellent chemical resistance features (against detergents, propellants, lubricants ...), and good resistance features against atmospheric agents.

Area of applicability

P.21 series, due to its chemical nature, is suggested for painting and protecting metallic substrates for outdoor use where it is required a superior degree of chemical resistance. Wide application field could be found in urban and rail furnishings, tube stations etc.

Color / Aspect

Please check stock list for eventual availability. Minimum order for custom production, starting from 25 kgs.

Products developed in P.21 could be:

- Smooth – glossy 71-95 gloss*
- Smooth – metallic
- Smooth – matt 5-30 gloss*
- Fine structure – matt
- Fine structure – metallic matt and semimatt
- Rough structure – semi glossy 55-70 gloss*
- Rough structure – metallic

Gloss level taken at 60° angle of incidence

Legislation

This powder coating respects European Directives "Restriction of the use of certain hazardous substances" 2002/95/CE and 2011/65/EU (RoHS).

Storage stability and packaging

if kept in dry environment, in sun shelter and at temperature of maximum less than 30° powder coating stay stable for 36 months. In presence of different conditions then the ones written above, it is possible to accuse inconveniences such as lumps and important decreasing in powder coating fluency.

Goods are supplied in 25 or 20 kgs plastic bags and cardboard boxes.

Colore® - powder coatings

Issued on 01/10/2015

This technical data sheet replaces all previous versions



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Physical features	
• Specific gravity:	1.20-1.80 g/cm ³ according to the product
• Theoretical spreading rate:	m ² /kg = 1000/specific weight for thickness
• Particle size at 63 μ:	range 18-28

Features P.21 series after polymerization			
Test conditions			
Steel panel	0,8 mm		
Surface pretreatment	Zinc salt phosphating		
Film thickness	According to the effect		
Curing conditions	200°x15' (T° object)		
TESTS	SPECIFICATIONS	UNIT OF MESAUREMENT	RESULTS
Gloss (60°)	UNI EN ISO 2813	gloss	Up to the effect
Thickness	UNI EN ISO 2360	μ	range 80-120
Colour gap (Δe) compared to initial standard		CIEILab	according to Qualicoat specifications
Buchholz hardness	UNI EN ISO 2815		>80
Erichsen cupping test	UNI EN ISO 1520	mm	<4 mm no cracks
Impact test (concave)	UNI EN ISO 6272-2	cm/kg	30 cm/kg no cracks
Impact test (convex)	UNI EN ISO 6272-2	cm/kg	30 cm/kg no cracks
Bend test (Cylindereed mandrel)	UNI EN ISO 6860	mm	5 mm No cracks
Cross-cut adhesion test	UNI EN ISO 2409	GT	0: no detachment
Salt spray test (500 hrs)	MTD-03	mm	corrosion length max 4 mm corrosion area max 16mm ² /10cm
Solar box exposure: 250 hrs	UNI EN ISO 11341	gloss	≥50% drop in gloss



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Surface preparation

Surface must be carefully cleaned and degreased, according to the corrosion protection level requested. On steel, to get better results and to improve corrosion resistance features, it is possible and suggested, using in combination with our Colore® epoxy primers.

Application

- Spraying can be done with automatic or manual Corona or Tribo electric system. With Tribo electric system, compatibility with any metallic powder coating must be tested in plant, before its industrial use.
- Never mix powder from different production batches.

Polymerization conditions

(object temperature)

- 200°x15'

Safety

Please check safety data sheet of specific product (MSDS)

Disclaimer: all provided and given information are correct and the result of our best experiences and knowledges, but they do not comport any responsibilities or warranty in case of non-proper use. In accordance with COLORE® policy of products development, information given in this technical data sheet are susceptible, without notice, of changing in respect of company view product's continuous improvement.

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