



TECHNICAL DATA SHEET

Berger Paints Powder Coating

Brand Category: ULTRACOAT

Product Series: 301, 302, 311, 320, 321, 322, 323

Product Description:	Thermo-setting type Powder coating formulated for general purpose application intended for indoor use. Items that demand good aesthetic value with an excellent smooth glossy finish can be coated with this powder. Single coat application on properly pre-treated components will provide adequate protective as well as decorative properties.
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Product Properties:	Chemical Nature:	Epoxy / Epoxy – Polyester Hybrid
	Flow finish:	Glossy /Semi glossy/Matt/Texture/Structure/Metallic
	Particle Size Distribution:	Made to fit for respective finishes / applications
	Specific Gravity:	1.60 ± 0.20
	Storage:	Keep in dry cool condition @25°C, Avoid Sunlight/UV light
	Shelf Life:	6 months from date of manufacturing when stored in sealed carton at 25°C & 50% RH.

Technical Data

Mechanical Tests:	PARAMETERS	STANDARD	OBSERVATION
	Shade:	Color computer / Visual	Close match to STD / Delta e ≤ 1.0
	Gloss:	ASTM D 523	Glossy: > 85 GU. Semi-Glossy: 30 – 80 GU. Matt: < 30 GU.
	Film thickness:	ASTM 1186	50 - 100 Microns
	Finish:	Visual	Smooth, Texture, Structure & Metallic etc.
	Cross Cut Adhesion:	ASTM D 3359	GT = 0/100
	Impact:	ASTM D 2794	30 – 100 kgcm(Direct / Reverse)
	Flexibility:	ASTM D522	3 - 9 mm to pass

Chemical Tests:	Salt Spray Resistance:	ASTM B117	300 - 1000 hrs.
	Humidity Resistance:	IS 101	300 - 1000 hrs.



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Pre-treatment:	Mild steel or CRCA surfaces must be cleaned and free from grease or other soil followed by Iron or Zinc phosphate required for adequate properties. While Aluminium surfaces will require a suitable chromate conversion, chrome free pre-treatment or flash anodising before powder applications. Galvanised steel may require zinc or chromate conversion or sweep blasting. Detailed advice should be sought from the pre-treatment supplier.
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Application:	Substrate	CRC , MS , Aluminium etc.
	Application system	Electrostatic Spray Gun
	Voltage	60 – 90 KV
	*Curing Schedule , (EMT)	180 - 210°C for 10 - 15 mins

***Customized curing schedules are also honoured.**

Ultracoat products are to be applied normally by Corona charged guns. However powders suitable for application through Tribo guns & Restrictions On Hazardous Substances (RoHS) complied powders can also be made available on demand.

We recommend:

- Flat jet spray nozzles or as demanded by the shape & size of the components.
 - voltage: around 60-90 kV based on system
 - distance gun – part: 20 to 25 cm
 - Slow first passes
 - Gas or Diesel fired ovens must be fitted with Heat Exchanger having uniformity of inside temperature.
- To ensure homogeneity the powder should only be fed from a fluidization hopper. Direct feeding from the powder box is not recommended.

Recycling: Up to 30% of reclaimed powder. For Metallic maximum 10% of reclaimed powder to be mixed.

Safety Precautions: This is for Industrial use only, for relevant safety data sheet please refer the MSDS of the same product.

Disclaimer: The given data here are based on best of our knowledge & subsequent data we receive from our customers. In view of many factors that may affect processors/applicators' present system, these data do not relieve processors/applicators from carrying out their own investigations and tests to find out suitability for specific purposes. Neither do these data imply any guarantee nor the suitability of the products for a specific purpose until the same is being given in writing by us. These are general information only and may change without prior intimation.

For BERGER PAINTS INDIA LTD.

R&D, POWDER COATING

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