



Since 1760

Berger

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Antimicrobial Powder Coatings

Antimicrobial Powder Coatings is designed perfectly for protection of microbial attack on the coated surfaces & Berger is dealing with several products having antimicrobial activities for last 10 years.

This Antimicrobial Powder not only protect the equipment from microbial growth but also does not allow microbes to propagate further to adjacent areas.

This technological breakthrough is applied mainly on components which frequently come in human contact to protect against infections and diseases.

This coating provide an extra barrier to the spread of harmful bacteria, microbes in sensitive environments such as hospital and healthcare facilities, medical equipment, food and drink processing equipment, childcare accessories and many more.

Antimicrobial Powder works on active silver ions technology that inhibit unhealthy bacterial spread and growth with constant and controlled release of silver ions and remain active for years long period of time.



Typical Product Properties:

Powder:

Chemical Nature	Available in Pure Epoxy, Epoxy Polyester Hybrid , Pure Polyester, Polyurethane
Finish	Glossy, Semi Glossy, Matt, Structure, Texture, Metallic etc.
Particle Size Distribution	More than 80 microns → 0 – 5 %
	More than 63 microns → 8 – 10 %
	Less than 32 microns → 40 – 55 %
Specific Gravity	1.60 ± 0.2 gm/cc
*Curing Schedule**	180 ⁰ c - 200 ⁰ c for 10 minutes to 15 minutes (EMT)

*Please refer to individual product data sheet for exact schedule. ** Low bake as well as fast cure powder can also be made available

Mechanical Properties:

Test Parameters	Test Methods	Typical Results
Shade	Color computer / Visual	DE < 1.0, / Close match to STD
Gloss	ASTM D 523	Any Gloss range from 5 – 90 units @ 60 degree head
Film thickness	ASTM 1186	50-70 Microns
Cross Cut Adhesion	ASTM D 3359	GT = 0/100
Impact	ASTM D 2794	40 - 100 kgcm
Flexibility	ASTM D522	6 mm

Chemical Properties:

Salt Spray Resistance	ASTM B117	Passing 500 hrs.
Humidity Resistance	IS 101	Passing 500 hrs.
QUV Resistance **	ASTM G53	Passing 300 hrs

**For outdoor durable powders.

Antimicrobial Test: Test Protocol :- As per JIS Z 2801 : 2012.

Conforms to “R” value >2.0 (99.99% growth reduction).

Tested at one of the world’s acclaimed test laboratories based at UK (United Kingdom).

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.

Application Parameters:

Substrate	CRC , MS , Aluminium , Alloys etc.
Application system	Electrostatic Spray Gun
Voltage	60 – 90 KV

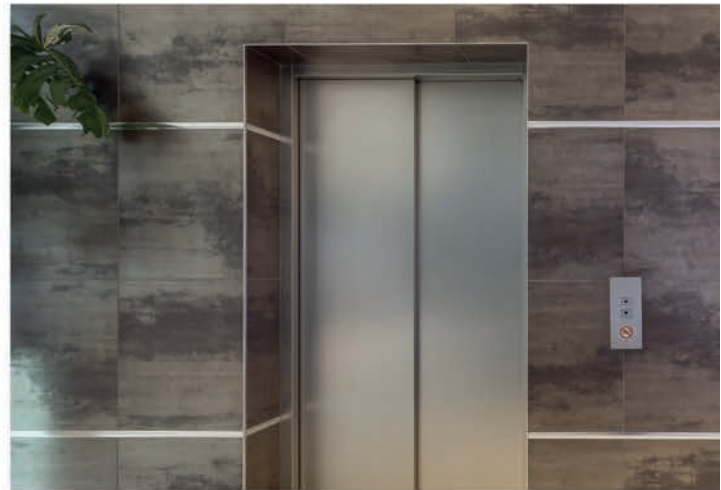
Customized curing schedules are also honoured.

Antimicrobial Powder is to be applied normally by corona charged guns, however this powder are credible for application through tribo guns also. Restrictions on Hazardous Substances (RoHS) complied powders are mainly made available on demand in Antimicrobial Powder.

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.
- Recycling: up to 20% of reclaimed powder.

To ensure homogeneity the powder should only be fed from a fluidization hopper. Direct feeding from the powder box is not recommended.



Areas of Application :

Hospital beds & healthcare equipment, Metal furniture, Home appliances, Gym equipment, Elevators, Childcare accessories, Storage racks, Storage cabinets, Door handle, Pedestal fan, Kitchenware, Mixing bowl, Shopping carts, Metal tray, Chimney, Automotive accessories, Bicycle, Air purifier, many more household items & other components that may require Antimicrobial efficacy.





Customer service :

Berger offers more than just a distinguished product. Continuous research & development are amongst the most important reasons for the prominent position which Berger enjoys within the industry. A well equipped technical service team is at your disposal. Berger believes in continuous interaction with the actual users and commitment to constant upgradation of product.



Safety Precautions : For Industrial use only. For Safety Data Sheet please refer to MSDS of the product.



Storage : Keep in dry cool condition @25°C, Avoid Sunlight/UV light



Shelf Life: 6 months from the date of manufacturing @25°C & 50% Relative Humidity.

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.



BERGER PAINTS INDIA LIMITED
Berger House, 129 Park Street, Kolkata 700 017

For Feedback/Complaints, please contact:
Consumer Relations Manager
Ph: 1800-103-6030

Fax: 91-33-2249-9729/9009

Email: consumerfeedback@bergerindia.com

Website: www.bergerpaints.com