

A vibrant rainbow arches across the top left corner of the page, transitioning from red on the left to violet on the right.

**Rapid Coat**  
POWDER COATINGS

# **RAPID COAT ANTIMICROBIAL POWDER COATINGS**



# ANTI-MICROBIAL POWDER COATING

## Overview

Antibacterial properties are required for such applications where coated object comes in contact with number of people & in the field of food, medical care, sanitation equipment, etc. Anti-Microbial powder protects from infection and stops the growth of bacteria and fungi.



## Testing Standard

- Standard: JIS Z2801
- Inoculating solution: Bacterial suspension initial
- Storing temperature: 35°C
- Storing humidity: > 90%
- Storing time: 24 hours

## Mechanism of Silver Technology

Silver ion inhibits the process of cell division by which the bacteria replicates. The action of silver additive is based on the slow and continuous leaching of super fine silver ions that interact with the metabolism of the microorganisms in various ways. Moisture in the air accelerates the property of ion exchange process by which silver is released at a continuous rate and maintain an antibacterial surface. In presence of moisture, the zeolite pumps out silver ions in exchange for sodium ions from the environment. As the environment becomes more humid, bacterial growth would be more, the zeolite discharges more silver ions thereby long term protection is ensured. Antimicrobial action of silver comes from the chemical properties of its ionized form  $Ag^+$ . When bacteria comes in contact with antimicrobial coated surface,  $Ag^+$  releases accordingly to the surface of the treated product to inhibit the bacterial growth.

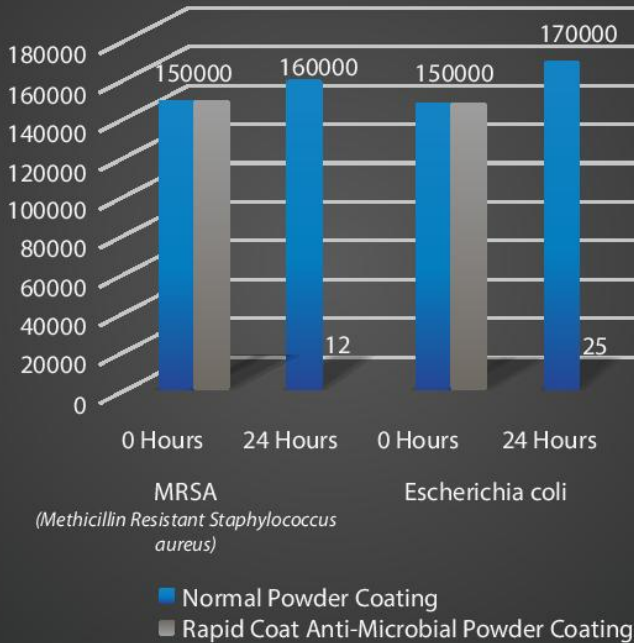
Sample	Substrate	Number of Colonies		% Reduction	Results
		0 Hours	24 Hours		
No Coating	Polyethylene	110000	12000000	N/A	Fail
With Coating	Rapid Coat Anti-Bacterial Powder	110000	<10	>99.99991	Excellent





# ANTI-MICROBIAL POWDER COATING

## Anti-Microbial Coating Effectiveness



Graph Showing Effect of Rapid Coat Anti-Microbial Coating on Bacterial Colony with time

## Application Areas

### 1. Domestic Appliances:

- Interiors of refrigerator
- Air blown humidifier (where humidity welcomes the growth of bacteria and fungi.)
- Washing machine
- Air conditioner etc.

**2. Medical Care:** Hospital and clinics are widely using antibacterial powder coated equipment & objects e.g.:

- Instrument Tray
- Sterilization Equipment
- Lighting Fixture
- Cabinet & Bed etc.

### 3. Sanitation:

- Bathroom Accessories
- Dishwasher and Shopping Cart etc.

### 4. Food Equipments:

- Mixing Bowl, Serving Tray
- Sinks, Cooler, Display Cases,
- Food Processing Equipments
- Storage Bins etc.

### 5. Steel Furniture Industry:

- Steel Shelving
- Storage Cabinets (used in shopping malls) etc.

### 6. General industry: Escalator, elevator, etc.

## Types of bacteria tested

Listeria Monocytogenes, Escherichia Coli, Salmonella Enteritidis, Staphylococcus Aureus (Resistant Strain), Bacillus Subtilis, Pseudomonas Aeruginosa, Salmonella Typhimurium, Streptococcus Faecalis, Legionella Pneumophila, Vibrio Parahaemolyticus, Enterobacter Aerogenes.

Rapid Coat Anti-Bacterial powders are available in a full range of colour, gloss and finish.

Special finishes can be custom matched as per the user's requirements.



# ABOUT US

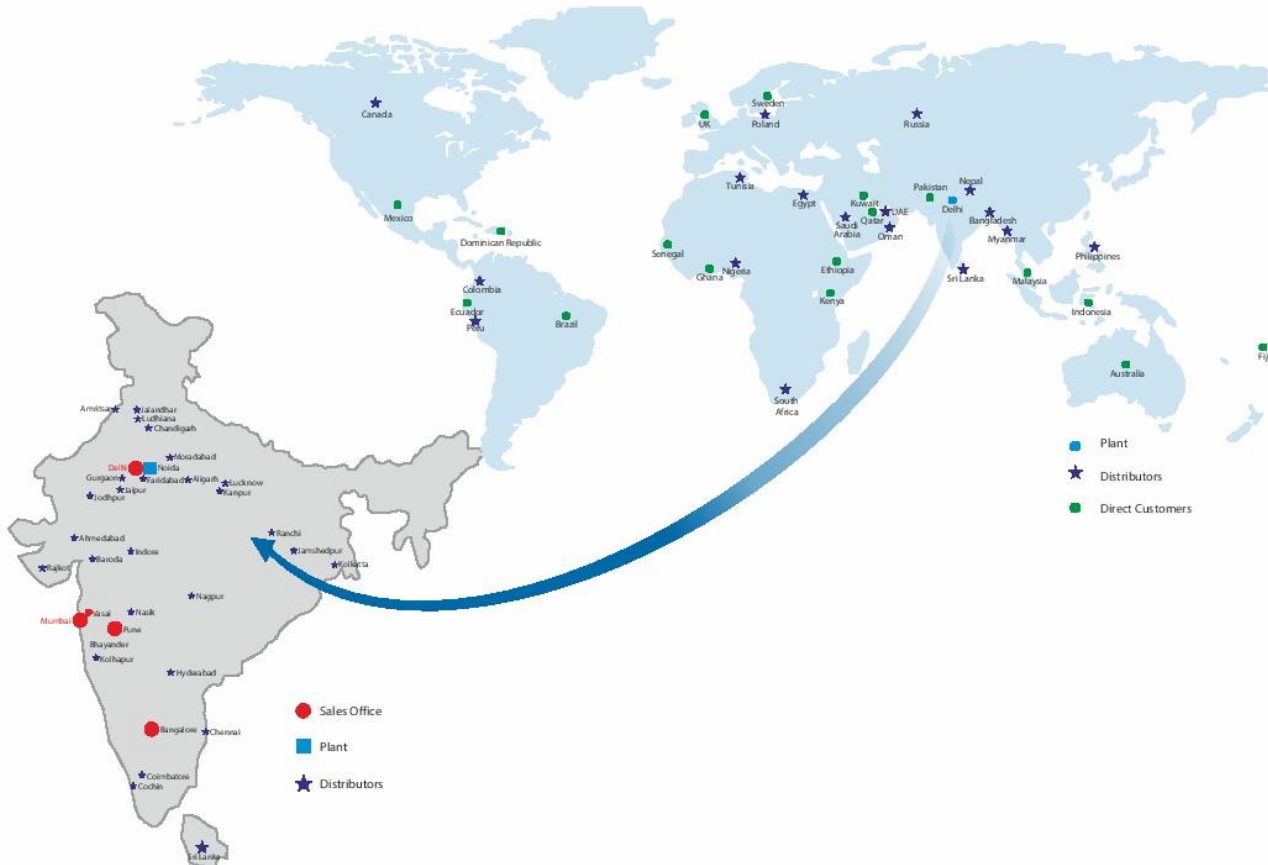
Rapid Coat Powder Coatings is manufactured by Rapid Engineering Co. Pvt. Ltd. The company started operations in 1974 and has been producing powder coatings since the past 25+ years. Its primary operations are located on 2 acres of land in a prime industrial area on the outskirts of New Delhi, India with approximately 100,000 sq. ft. of built up space. It sells its products to customers through a wide network of distributors and company owned sales offices.

## PRODUCTS:

- Epoxy Polyester Powders for Powder Coatings: We are one of the largest manufacturers of this product in India with 9 production lines and a total manufacturing capacity of 7000 tons annually.
- Thermoplastic Powders for Plastic Coating: We are the leaders in India with a manufacturing capacity of 2500 tons annually.

## CERTIFICATIONS:

- ISO 9001:2008 Quality Certificate No. TUV100 07 1477 from TUV SUD Management Service GMBH
- CRISIL Rated SE1B
- Government of India Recognized Export House Certificate



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