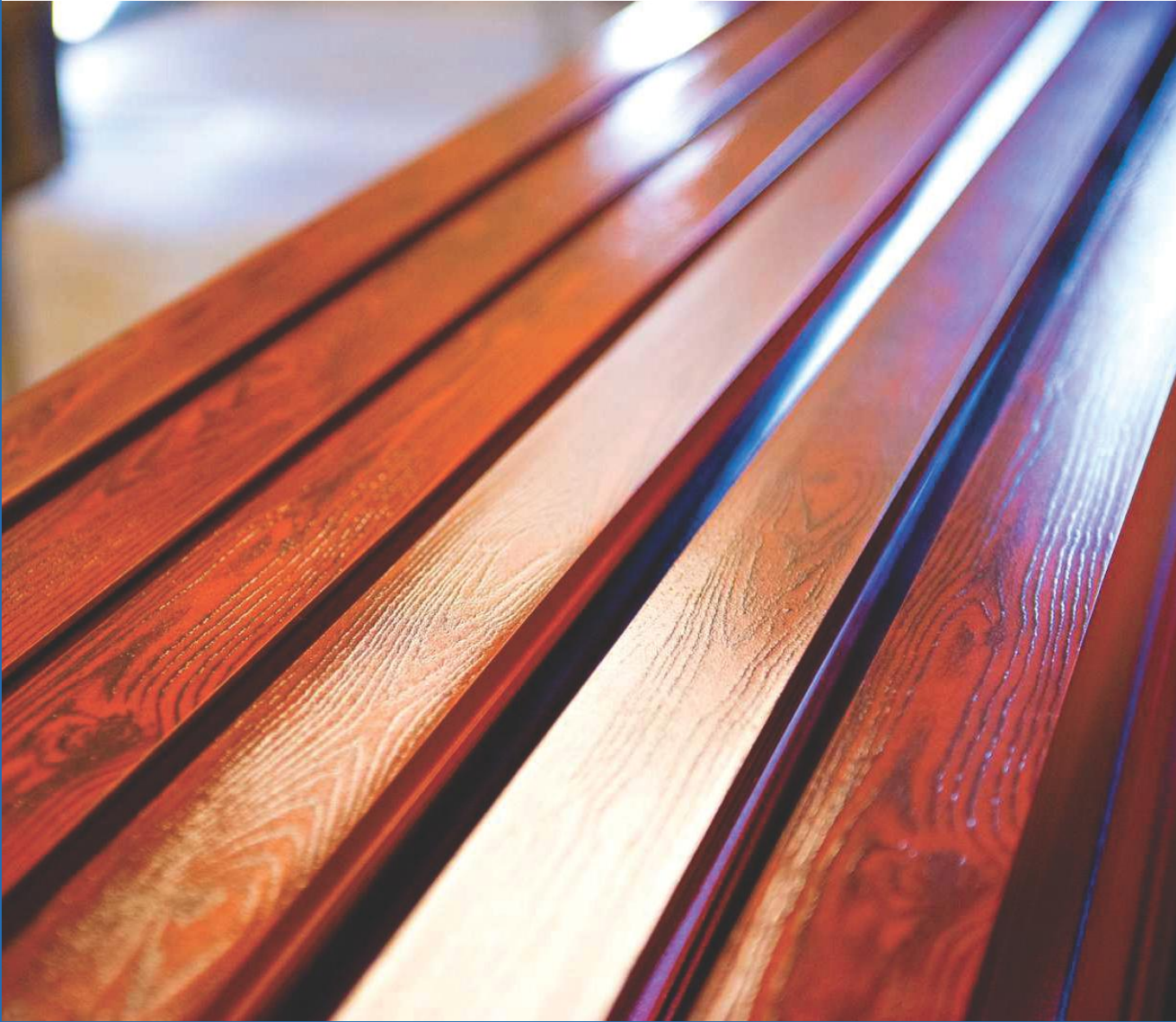


SINCE 1974

Rapid Coat
POWDER COATINGS

**WOOD FINISH
POWDER COATINGS**



Overview

The process involves the physical reaction between special inks and polyurethane powder coating. Under controlled conditions of heat and pressure, photographic images are absorbed directly into the powder coating.

Introduction

Rapid WOODCOAT is a special Polyurethane powder that provides excellent wood finish effects using sublimation process. The coating exhibits excellent outdoor durability and adhesion to both ferrous and Aluminium resulting in superior mechanical properties. The particle size distribution of Rapid WOODCOAT is designed to meet the requirements of application by electrostatic spraying process.

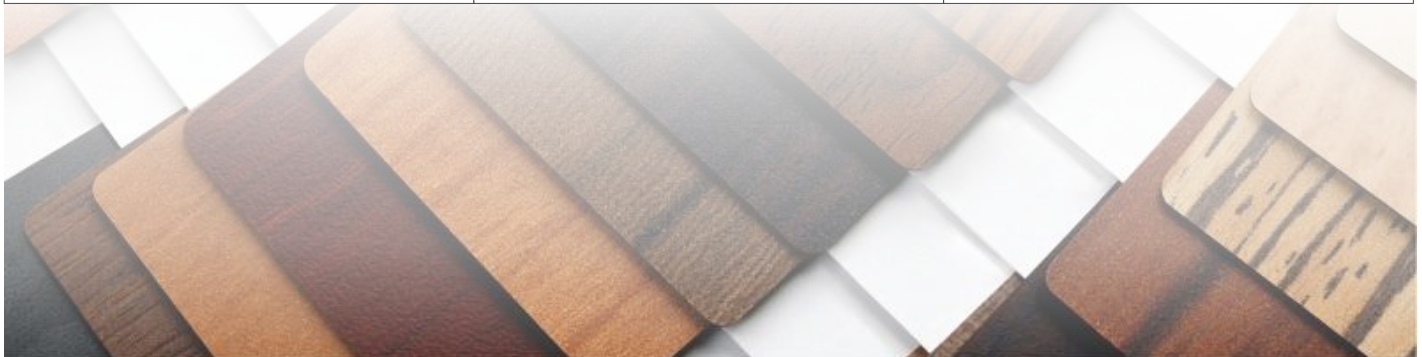
Process

The process is known as sublimation and comprises two stages:

First, polyurethane powder coating is applied to Aluminium or steel. This is similar to standard powder coating however in this case a slightly thicker coating is applied and the curing time is longer.

The second stage involves wrapping the powder coated Aluminium or steel in film with the photographic image printed onto it, such as wood grain or marble. When the Aluminium or steel is loaded it is transferred into an oven and the powder coated metal is heated to 200°C, at which point the sublimation inks are fully absorbed into the powder coating, transferring the photographic image to the Aluminium. The inks penetrate the full depth of the powder coating, creating a beautiful and durable finish.

| Uncoated Aluminium Panel | Panel with Base Coat | Panel + Base Coat + Sublimation |
|--|--|--|
|  A rectangular aluminium panel with a dark, reflective surface, showing some scratches and a small hole at the top. |  A rectangular panel with a uniform, bright yellow base coat and a small hole at the top. |  A rectangular panel with a realistic wood grain finish, a small hole at the top, and a smooth surface. |





Powder Properties Standard

| Powder Properties | Standard |
|--|----------------|
| Specific Gravity | 1.6±0.1 |
| Particle Size Distribution % Below 63μ | 80-90 |
| Storage Stability | 1 Year @ <25°C |

Application of Powders

The surface area of the component must be clean and free from grease, rust and other contamination. Apply powder using either electrostatic spray guns. The powder will melt, flow and cure within 10-12 Minutes @200°C.

Test Condition

The results of mechanical & chemical tests given below were conducted under laboratory conditions and are given for guidance only. Actual product performance depends upon the circumstances under which the product is used. Tested substrate thickness 0.6mm. Recommended film thickness is 60-80 microns.

Properties of Film

| Film Properties | Method | Observations |
|----------------------------|---------------|--------------------------------------|
| Impact Strength | ASTMD-2794-69 | 40 Kg-Cm @ 60μ |
| Pencil Hardness | ASTMD-3363 | H |
| Adhesion | ASTMD-3359 | GT-0 |
| Gloss at 60° Head | ASTMD-523 | Visually |
| Neutral Salt Fog Test | ASTMB-117 | No change within 500 hours |
| External Appearance | VISUAL | Smooth & Texture |
| QUV Accelerated Weathering | ASTM-G-154 | 500 hours |
| Test (QUV A-340) | | 500 hours |
| Packing | | Double Polythene Bags and outer side |

ABOUT US

Rapid Engineering Co. Pvt. Ltd. started operations in **1974** and primarily produces thermoplastic and thermosetting powder coatings. The company has **two plants located in Sahibabad, Uttar Pradesh and Noida, Uttar Pradesh, India.**

In addition, the company has warehouses cum sales offices in **New Delhi, Mumbai, Pune & Bangalore.** The company is also exporting its products to 35+ countries worldwide. Rapid Engineering has been awarded the '**Recognized One Star Export House**' certificate by the Government of India in recognition of its exports track record.

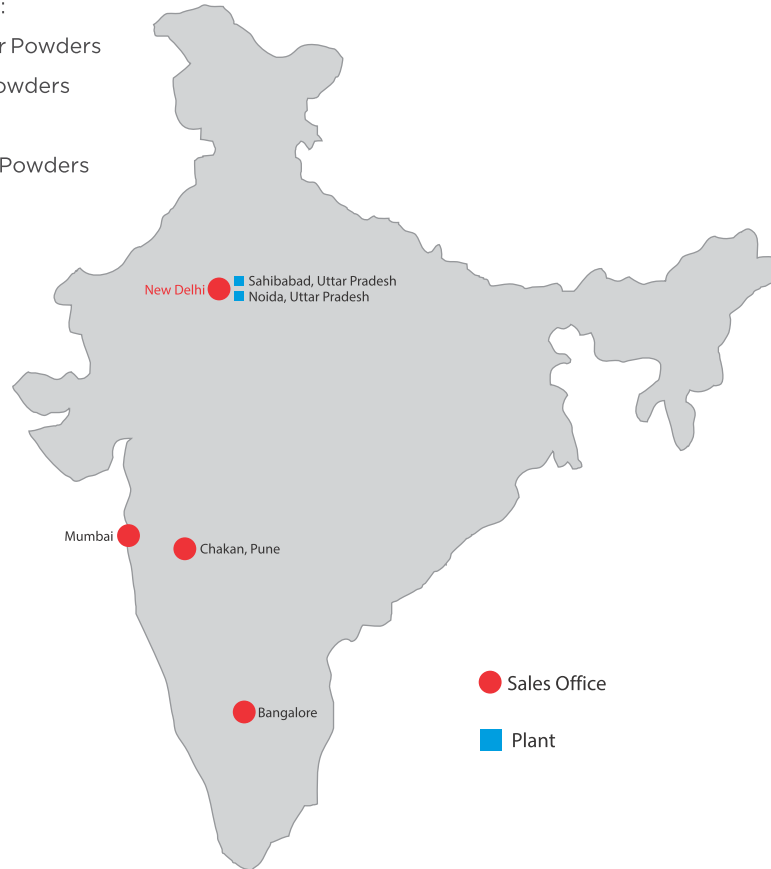
Since 2001 the company is ISO certified and is currently compliant with **ISO 9001:2015 Quality Certificate No. TUV99 100 16731 from TUV SUD Management Services GMBH.**

Rapid's Powders are **Qualicoat, Switzerland: Class 1 and Class 2 approved. Class 1 Approval No. P-1419: Class 2 Approval No. P-1504:**

In 2019, Rapid Polymers (A Division of Rapid Engineering Co. Pvt. Ltd.) was formed to manufacture plastic masterbatches and cryogenically pulverised plastic powders.

Rapid's range of products includes:

1. Thermosetting Epoxy / Polyester Powders
2. Thermoplastic Plastic Coating Powders
3. Plastic Masterbatches
4. Cryogenically Pulverised Plastic Powders



Rapid Coat
POWDER COATINGS



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