

## Primax Excel

### PRODUCT DESCRIPTION

Primax Excel is a low temperature cure powder coating primer for Medium Density Fibreboard (MDF) and other similar types of engineered wood substrates.

The product can easily be sanded to give a smooth surface providing excellent inter-coat adhesion to either powder or liquid topcoat. It is an environmentally friendly alternative to traditional primer technologies.

### Application areas

The product is for interior use only.

Typical application areas:

Kitchen cabinets  
Bathroom furniture  
Office furniture  
Home furniture  
Children's furniture  
Shop fittings

### POWDER PROPERTIES

| Property         | Standard   | Result                                  |
|------------------|------------|---|
| Specific gravity | Calculated | Typically $1.45 \pm 0.1 \text{ g/cm}^3$ |

### Storage

Keep in a dry cool area. Storage time 6 months at maximum temperature  $\leq 17 \text{ }^\circ\text{C}$ . Maximum relative humidity 60 %. When transporting, the product must be kept at a temperature of  $\leq 17 \text{ }^\circ\text{C}$ .

### APPLICATION

#### Pretreatment

The overall quality of the coating system is largely dependent on the type of MDF, the quality of the substrate preparation and the coating application line. Since there are many grades of MDF available in the market which can differ in moisture and resistance content, density profile, internal bond strength etc., it is recommended that the coater determines which grade of MDF will best achieve the desired quality according to powder application procedures.

The MDF surface must be clean and free from dust, grease, adhesive and loose MDF fibres. The MDF may need to be sanded in order to homogenize the surface to be coated. The edges should also be rounded and made smooth (minimum 1.5 degrees radius). For best results, the moisture content of the MDF should be between 5 and 7 %.

MDF board should have a certain level of conductivity in order to attract and hold the electrostatically charged powder coating particles. In order to ensure that correct coating properties are achieved, preconditioning of the board to secure the correct moisture content will be necessary. This will enable good earthing to be achieved and therefore ensure the correct level of surface conductivity for coating. If in doubt, please seek advice from your Jotun technical service advisor.

When handling more porous MDF boards, alternative surface and edge preparation techniques such as thermo-smoothing and/or edge banding may be considered.

### Powder application

Infrared heating or a combination of infrared and convection heating is recommended.

| Curing schedule | Object temperature | Time      |
|-----------------|--------------------|-----------|
| Primax Excel    | 130 °C             | 3 minutes |

**Note!** The exact curing conditions are dependent on the curing oven configuration, condition, and the substrate.

The coating should be fully cured in order to assure the correct coating properties. An inadequately cured coating (or prepared board) may result in coating failure, e.g. edge cracking (especially when the board is subjected to environments with different humidity content), reduced chemical resistance and/or a sticky surface. Failures of this nature may appear a few hours after application as well as several months after application.

Recommended film thickness (µm) before sanding: 80-150

### Equipment

Suitable for Corona charging equipment.

## APPEARANCE

|               |  |
|---------------|--|
| <b>Colour</b> | The product is available in a wide variety of colours. Custom requested colours are available upon technical approval. |
| <b>Gloss</b>  | High gloss   |
| <b>Finish</b> | Smooth   |

## PERFORMANCE

The technical data provided below are typical for this product when applied as follows:

|                          |                    |
|--------------------------|--------------------|
| Substrate                | Suitable MDF board |
| Substrate thickness (mm) | 15                 |
| Film thickness (µm)      | 80-150             |

Typical values when tested.

| Property                     | Standard                        | Result            |
|------------------------------|---------------------------------|-------------------|
| <b>Pencil hardness test</b>  | ASTM D3363-05 (Derwent Graphic) | Minimum H (gouge) |
| <b>Adhesion</b>              | EN ISO 2409 (2 mm)              | Rating Gt 0       |
| <b>Water resistance test</b> | Ledro swelling test - 48 hours  | Pass              |

### Sustainability

Powder coating is applied in air-and-powder mix in a strictly controlled factory process using electrostatic gun and a high temperature curing oven to create film. Virtually no VOCs are released in the process compared to traditional liquid paints. Unused or oversprayed powder can be recycled with minimal wastage, and disposal is easy and safe. In addition, all Jotun Powder Coatings' products does not contain intentionally added lead.

### Disclaimer

# Technical Data Sheet

## Primax Excel



Jotun Protects Property

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.