

Reveal Sand

PRODUCT DESCRIPTION

The product is a low temperature cure powder coating specifically developed for the Medium Density Fibreboard (MDF) furniture industry. It gives the powder coated MDF surface a matte fine textured finish that meets the mechanical and chemical resistance requirements of the general furniture industry.

For optimum results, the product is to be used in combination with Primax Base.

Application areas

This product is recommended for interior use only.

Typical application areas:

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

POWDER PROPERTIES

Storage

Keep in a dry cool area. Maximum temperature 18 °C. Maximum relative humidity 60 %. If stored longer than 6 months a quality test is recommended.

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 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 degree 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

This product is formulated for curing temperatures of 135 °C (object temperature) for a period of 5 minutes.

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

A fully cured film has to be reached in order to assure film properties. An inadequately cured film may end in film failure, e.g. edge cracking, especially when the board is subjected to environments with different humidity content.

When used together, Reveal Sand as a topcoat, and Primax Base, as a primer/sealer, the total curing schedule used to cure both layers can be minimised. Indeed, the first layer does not need to be entirely cured before the second layer is being applied. A 2-minute cure for example of the first layer followed by another 5-minute cure when the second layer is applied is usually enough to have the total system cured and have the MDF benefit from a proper sealing and finish.

Curing schedule	Object temperature	Time
Primax Base	130 °C	3 minutes
Reveal Sand	135 °C	5 minutes

For more detailed information and support, please contact a technical or sales representative at Jotun Powder Coatings. Note that the curing schedule optimum may vary from equipment to equipment.

Equipment

Suitable for Corona or Tribo charging equipment.

APPEARANCE

Colour	The product is available in a wide variety of RAL and NCS colours (including sparkling).	
Gloss	ISO 2823 (60°)	5-40
Finish	Available in textured finishes only.	

If the significant surface is too small or unsuitable for the gloss to be measured with the glossmeter, the gloss should be compared visually with the reference sample (from the same viewing angle).

Other gloss levels are available upon technical approval.

PERFORMANCE

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

Substrate	MDF board
Substrate thickness (mm)	18
Film thickness (µm)	130-200

Typical values when tested.

Property	Standard	Result
Chemical resistance	DIN 68861-1	1B Pass (Appendix A)
Scratch resistance	SS839117	4B
Dry heat	EN12722	Rating 5 (no change) at 70 °C
Wet heat	EN12721	Rating 5 (no change) at 85 °C

Sustainability

Compared to other technologies, low cure powders have a low carbon and Eco footprint. Details on the study and the graphs are available upon request to your local sales representative.

Disclaimer

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.

Appendix A:

Chemical resistance test results

The table below represents a typical furniture test report established according to the DIN 68881-1 specifications. Note that the rating of each test has been done according to the DIN EN 12720 rating definition.

Test material	Description	Requirements				Reveal Sand (C020)			
		1A		1B					
		DoE	R(b)	DoE	R(b)	DoE	R	DoE	R
01. Acetic acid	Commercial household vinegar	16 h	5	1 h	5	16 h	5		
02. Citric acid	10 % solution	16 h	5	1 h	5	16 h	5		
03. Sodium carbonate	10 % solution, Na ₂ CO ₃	16 h	5	2 m	5	16 h	5		
04. Ammonia	10 % solution	16 h	5	2 m	5	16 h	5		
05. Ethanol	Not denaturated, 48 % vol.	16 h	5	1 h	5	16 h	5		
06. White, red and fortified wine		16 h	5	6 h	5	16 h	5		
07. Beer		16 h	5	6 h	5	16 h	5		
08. Coca Cola		16 h	5	16 h	5	16 h	5		
09. Powder coffee	40 g mixed in 1 L boiling water	16 h	5	16 h	5	16 h	5		
10. Black tea	10 g leaves mixed in 1 L boiling water	16 h	5	16 h	5	16 h	5		
11. Blackcurrant juice	Commercial	16 h	5	16 h	5	16 h	5		
12. Condensed milk	10 % fat content	16 h	5	16 h	5	16 h	5		
13. Water	De-ionized or distilled	16 h	5	16 h	5	16 h	5		
14. Petrol	95-98 octane	16 h	5	2 m	5	16 h	4	2 h	5

Technical Data Sheet

Reveal Sand



Jotun Protects Property

15. Acetone		16 h	5	10 s	2	16 h	4	2 h	4
16. Ethylbutyl acetate	Mixing ratio 1:1	16 h	5	10 s	2	16 h	3	2 h	3
17. Butter		16 h	5	16 h	5	16 h	5		
18. Olive oil		16 h	5	16 h	5	16 h	5		
19. Mustard		16 h	5	6 h	5	16 h	5		
20. Sodium chloride	5 % solution NaCl	16 h	5	6 h	5	16 h	5		
21. Onion juice		16 h	5	6 h	5	16 h	5		
22. Disinfectant	Chloramine T, 2.5 % hydrous solution	16 h	5	10 m	5	16 h	5		
23. Black ballpoint pen ink		16 h	5	16 h	2	16 h	3		
24. Marking ink		16 h	5	16 h	2	16 h	3		
25. Cleaning agent		16 h	5	1 h	5	16 h	5		
26. Cleaning solvents		16 h	5	1 h	5	16 h	5		

DoE: Duration of Exposure

R: Results

(b): maximum value