

Product Data Sheet

Era-Coat MDF 32T

Product Description Era-Coat MDF 32T is a low temperature cure powder coating designed to provide attractive decorative finishes combined with functional properties on engineered wood products, in particular Medium Density Fibreboards (MDF).

Era-Coat MDF 32T offers excellent mechanical and chemical performance combined with superior stain resistance to household materials. Era-Coat MDF 32T provides an environmental and design friendly alternative to traditional finishing systems on MDF.

Application Areas Era-Coat MDF 32T is recommended for interior use only. Typical application areas include office and home furniture and screening, children and nursery furniture, retail displays and shelving, partitioning, cabinet enclosures, doors and countertops.

Surface Preparation 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 types of MDF grades available in the market which differs in moisture content, density profile, internal bond strength etc., we recommend the coater to determine which MDF type will achieve the desired quality according to the procedure followed during powder application.

In any case, the MDF surface must be clean and free from dust, grease, adhesive and loose MDF fibres. The MDF panels may need to be sanded in order to homogenize the surface to be coated. Edges also need to be rounded and made smooth.

A certain level of MDF board conductivity is required in order to attract and hold the electrostatically charged powder coating particles. Normally an electrical surface resistance of $< 10^{10}$ Ohm is enough for this purpose.

In case the substrate is not electrically conductive enough, preheating or moistening the surface previous to the powder application are alternatives that allow the surface to reach the needed conductivity.

Curing Schedule Era-Coat MDF 32T is formulated for curing temperatures of 140°C (object temperature) for a period of 8 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, Era-Coat MDF 32T as a top coat, and Era-Coat MDF Primo, 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 3-minute cure for example of the first layer followed by another 8-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.

Temp cure: 140°C	Curing time
Era-Coat MDF Primo	3 minutes
Era-Coat MDF 32T	8 minutes



11 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.

Colour Selection Era-Coat MDF 32T is available in a wide assortment of custom-made colours, including RAL and NCS.

Finish Era-Coat MDF 32T is available in textured finishes only.

Powder Application Era-Coat MDF 32T is available for manual or automatic corona and tribo electrostatic spray.

Storage Conditions Keep in a dry cool area. Maximum temperature 25°C. Maximum relative humidity 60%. Shelf life should not exceed six months, at the above mentioned conditions.

Technical Data

The technical data provided below are typical for Era-Coat MDF Primo and Era-Coat MDF 32T applied together on a 18 mm MDF board (130-200 micron film thickness). Typical values when tested have not necessarily been recently revised. Values may vary with colour and gloss level.

Description	Norm	Result Era-Coat MDF 32T
Gloss (60°)	ISO 2823	5-30
Adhesion	EN ISO 2409 (2mm)	Gt0 (100% adhesion)
Chemical Resistance	DIN 68861-1	1B
Scratch Resistance	DIN 68861-4	4B
Abrasion Resistance	DIN 68861-2	2C
Dry Heat	DIN 68861-7	7A
Wet Heat	DIN 68861-8	8A
Light Fastness	NS-EN 15187	>6
Climate Cycle	ANS/KCMA A 161.1 Sec.9-2	No changes

APPENDIX A: Chemical Resistance test results

The table below represents a typical furniture test report established according to the DIN 68861-1 specifications. Note that the rating of each test has been done according to the DIN EN 12720 rating definition.

Test Material	Description	Requirements				Era-Coat MDF 32T			
		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 denaturized, 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	40g mixed in 1l boiling water	16 h	5	16 h	5	16 h	5		
10. Black Tea	10g leaves mixed in 1l boiling water	16 h	5	16 h	5	16 h	5		
11. Black Currant 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
15. Acetone		16 h	5	10 s	2	16 h	4	2 h	4
16. Ethyl-Butyl-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 Ball-Point 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

Note: The information on this Product Data Sheet is given to the best of the manufacturer's knowledge, based on laboratory testing and practical experience. However, as the product is often used under conditions beyond the manufacturer's control, only the quality of the product itself can be guaranteed. Jotun Powder Coatings reserves the right without notice to alter or change the content of this Product Data Sheet.

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THIS PRODUCT DATA SHEET SUPERSEDES ALL PREVIOUSLY ISSUED VERSIONS.