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Norflam TP 01 Technical Data Sheet

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Product type

Norflam TP 01 is a water-based low-VOC flame retardant primer for wood based material application.

Product description

Norflam TP 01 is a flame retardant primer for wood application with excellent fire protection properties, suitable for all wood based products in the product combination with Norflam TT 01 top coat and other certified product combinations.

Norflam TP 01 can be used for example on plywood, multilayer wood panels, OSB, mdf, cladding etc., material requirements can be seen from the certificates.

Norflam TP 01 treated surfaces need to be coated with a film forming top coat.

Norflam TP 01 is intended primarily for industrial use only.

Field of application

Norflam TP 01 + Norflam TT 01 product combination can be used for:

A.) Visible interior (INT1) structures. Industrial application conditions only.

B.) Non-visible interior (INT1) structures. On-Site and Off-Site application methods can be used.

Norflam TP 01 + other top coats, certified combination:

C.) Please, refer to the certification and the treatment instruction manual on the combination in question.



Technical information

Attributes

Norflam TP 01 enables the highest possible flame retardancy for wood (Euroclass B-s1,d0) when used with Nordflam **TT 01** top coat.

This product combination improves fire protection of challenging wooden structures.

Theoretical net wet spread amount of TP to reach the EuroClass B-s1, d0 is \geq 200 g/m2.

Net coverage with 1 liter is 4,0 m2 and net amount of application in liters is 0,25 l/m2.

Technical data

Density:	1,25 g/cm3
Solids:	35 w-%
Volatile organic compound (VOC):	M1, Eurofins GOLD®
Colors:	Clear
Drying times:	A.) Industrial treatment 12 to 15 min (+55°C/50% RH) between the layers and after the last layer.
	<i>B.) On-Site / Off-Site treatment</i> 60 to 120 min (+18°C/50% RH) between the layers and 48 hours after the last layer.
Fire performance class:	EuroClass B-s1, d0. Norflam TP 01 200 g/m2 used as a product combination with Norflam TT 01 150 g/m2.

Instructions of use

Application methods

A.) Industrial treatment, visible structures with Norflam TT 01

Norflam TP 01 is suited for airmix-spray, airless-spray, brush line, flow coating and vacumat treatment, and needs a sufficient oven system (IR, heated circulating air or equivalent) for drying.



B.) On-Site / Off-Site treatment, non-visible structures with Norflam TT 01

Norflam TP 01 is suited for spraying with high-pressure sprayers, as well as treatment with a paint brush, air drying method possible.

C.) Other top coats. Please, refer to the certification and the treatment instruction manual on the combination in question.

General conditions of use

Material to be treated must be cleaned and free of dust, dirt and loose particles.

With dense and planed materials sanding of the surface might be needed prior to treatment to ensure better impregnation.

Mix the product well before use as well as during the use. Do not dilute, the product is ready for use. Once opened, ensure that the containers are re-closed firmly.

Informed drying times are guidelines only, actual drying time depends on the treated material, layer thickness, ventilation etc.

Norflam TP 01 is a transparent product and it may change the tone of the treated material or cause coloration depending on the treated material. It is advised to test the coloration effect before application on large surfaces.

Ensure the following recommended conditions during the application and drying:

Product temperature	+18+50° C	
Air temperature	+18+50° C	
Relative humidity of the air	2060 %	
Wood humidity	1018%	

Always familiarize Yourself with the latest version of the treatment instructions manual for Norflam TP 01 and Norflam TT 01 product combination as well as other needed Norflam TP 01 including product combination manuals.

Application

A.) Industrial treatment, visible structures together with Norflam TT 01

The surface must be covered from all four (4) sides, 1 to 2 times to achieve a total wet spread amount of 200 g/m2, with intervals as follows:



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Norflam TP treatment layers	Temperature	Time	Max. temp	RH
Norflam TP, between the layers	+55 °C	8 to 12 min	+85 °C	50 %
Norflam TP, after final layer	+55 °C	12 to 15 min	+85 °C	50 %
Drying and cooling off period	+20 °C	Min. 30 min	-	50 %

When an especially smooth finished final surface is needed, the wet spread amount of **Norflam TP 01** must be 220 g/m2 to allow a slight sanding to be done to the dried Norflam TP 01 surface before Norflam TT 01 application.

B.) On-Site / Off-Site treatment, non-visible structures with Norflam TT 01

The surface must be covered from all four (4) sides 2 to 3 times to achieve a total wet spread amount of 200 g/m2, with 1 to 2 hour intervals (+18°C/50% RH), depending on the type of wood material, ventilation, etc.

Excessive (approx. 10 hours) drying time between coats might result in poor impregnation of the adjacent coats.

After all the treatments with Norflam TP 01 are done, the surface is left to dry and settle for at least 48 hours (+18°C/50% RH).

C.) Other topcoats. Please, refer to the certification and the treatment instruction manual on the combination in question.

Cleaning of equipment

Use warm water to clean the equipment. Mild pH-neutral soap can be used with warm water for more effective cleaning.

Storage

Store at temperatures from +5 to +30 °C and out of direct sunlight.

Max storage time for Norflam TP 01 is 12 months from the date of manufacture on the packaging label.



Waste handling and environment

Do not discharge Norflam TP 01 to the sewer or ground. Collect all product waste and deliver to applicable hazardous waste handling. Product waste always needs to be disposed of based on local authorities' approval. Empty, dry product containers can be placed in mixed waste.

Norflam TP 01 treated wood products can be discarded as normal wood waste.

Safety

Observe the Norflam TP 01 Safety Data Sheet requirements.

The latest version of the Technical Data Sheet and Safety Data Sheet can be found on Nordtreat's website: <u>www.nordreat.com</u>.

Technical support is available at support@nordtreat.com.

The suitability of the treatable material shall be inspected by the manufacturer with respect to his/her requirements regarding quality, color, and the like, e.g. by a sample staining and/or sample varnishing.

The instructions and values in this technical data sheet are based on information obtained from laboratory tests and trials, as well as information obtained from actual applications. Nordtreat is responsible for ensuring that the quality of the product complies with Nordtreat's quality system. Furthermore, the information given does not represent any warranty of any characteristics and thus does not represent a contractual obligation regarding the product. Additionally, the information does not claim any completeness and it is given without any warranties.

Nordtreat is not liable for damages resulting from incorrect or improper use of the fire protection product. Nordtreat is also not responsible for fire protection treatment, as the conditions and methods of fire protection treatment vary. The prevailing conditions and methods related to fire protection must always be documented in accordance with the instructions of Nordtreat and the authorities.

Norflam is for industrial and professional use only. Nordtreat requires that the actual specialist using the fire protection product has received training for fire protection treatment from Nordtreat and that he is familiar with the documentation of the fire protection product: the treatment instructions, the technical data sheet and the safety data sheet.