

Pyrolan Fire-Protect KDI

5390000200

Boron-free flame retardant based on organic phosphorous compounds for impregnating wood and wood-based materials

PRODUCT DESCRIPTION

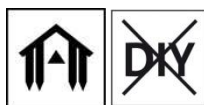
General

Water based flame retardant impregnation, especially developed for the vacuum pressure process, to improve the fire behaviour of wood and wood-based materials. The natural surface and colour of the wood is barely changed by the product. No formation of white salt efflorescence on contact with moisture. Low cutting tool wear (such as planer knives). The product is formulated without biocidal active substances to protect against blue stain and wood-destroying fungi.

Special properties and standards

- **EN 13501-1** (fire behaviour) in conjunction with flame-retardant chipboard – also veneered: B-s1,d0
- **NF P 92-501** (fire behaviour pursuant to French building material regulations) in conjunction with a flame retardant substrate: M1

Application areas



- For wall and ceiling panelling.
- Not directly weathered, non-dimensionally stable timber components in the outdoor area such as soffits, protected wood facades or substructures.
- Application in combination with a suitable top coat system.

PROCESSING

Instructions for use



- Please stir the product before use.
- The temperature of the product and object, and the room temperature must be at least +15 °C.
- The optimal conditions for use are between 15 – 25 °C with a relative atmospheric humidity of 80 %.
- The product is not weather-resistant without a topcoat!
- The painting system used must not have a negative influence on the fire behaviour of the flame retardant impregnation.
- To retain the flame retardant effect of the treated substrate, the maintenance intervals of the protective coating must be observed.
- In order to ensure full impregnation, the individual layers of wood should always be stacked using intermediate battens. Plastic rods are recommended as interlayers.
- As a result of the possible extraction of substances in the wood during the impregnation process, the impregnation solution may be discoloured in the case of some types of wood. Timbers impregnated subsequently may take on a dark colour due to this.
- It is recommended to give the impregnation equipment a suitable

protective coating. Contact your equipment manufacturer for this purpose.

- Wood moisture measurements on timber impregnated with Pyrolan Fire-Protect KDI can only be carried out using the Darr method. Conventional measuring devices, which determine the wood moisture using electrical conductivity, are unsuitable.
- Depending on the type of wood, the wood moisture has a considerable influence on the absorption capacity during the impregnation process.

Application technique



Application method	Vacuum pressure impregnation Recommended soaking cycle
Pre-vacuum	15 minutes at 0.7 bar
Pressure phase	120 minutes at 9 bar
Final vacuum	15 minutes at 0.7 bar
Yield/application (m ² /l)	The application quantity is based on the relevant fire protection standard, the type of wood and the soaking cycle selected. An application rate of 20 – 35 kg Pyrolan Fire-Protect KDI / m ³ generally meet the requirements according to ÖNORM EN 13501-1 class b.

The product is ready to use.

The shape, the properties and moisture of the substrate affect the consumption / yield. Accurate values for consumption must be obtained by applying trial coats in advance.

Drying times

It is recommended to dry the impregnated material in a drying chamber immediately after the treatment.

Cleaning the working equipment



With water immediately after use.

SUBSTRATE

Type of substrate

Wood, wood-based materials

Substrate property (or condition)

The substrate must be dry, clean, capable of holding the paint, free from separating substances such as grease, wax, silicone, resin etc. and free from wood dust, as well as tested for suitability for coating. Indications of algae, fungi or insect infestation and bark residue are to be removed.

As far as possible, all mechanical processing steps, such as cutting to size, planing, profiling, notching, drilling, splitting, milling are to be completed before impregnation.

Metallic fastening elements may only be attached after impregnation.

Wood moisture

< 25 %

COATING SYSTEM

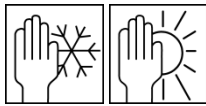
Primer	1 x Pyrolan Fire-Protect KDI 5390000200
Wood sanding	Before applying a top coat, the wood surface can be lightly sanded
Subsequent coating	<p>1x Lignovit Walzgrund 5345 1x ADLER Legno-Öl 50880 ff or 1x ADLER Legno-Color 50875</p> <p>Wood and wood-based materials impregnated with Pyrolan Fire-Protect KDI and subsequently given a topcoat must not be exposed to a combination of high moisture and mechanical abrasion (e.g. wet brushing). This could lead to a loss of adhesion between the wood and topcoat.</p> <p>Please observe the respective technical data sheets of the products.</p>

ORDERING INFORMATION

Size of trading unit	600 l container
Colour / degree of gloss	Farblos (colourless) 5390000200
Supplementary products	<p>Lignovit Walzgrund 5345 ADLER Legno-Öl 50880 ff ADLER Legno-Color 50875</p>

FURTHER DETAILS

Durability / storage	<p>At least 1 year in the original sealed containers.</p> <p>Make sure the product is protected against moisture, direct sunlight, frost and high temperatures (above 30 °C).</p>
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Technical specifications	<p>VOC content EU limit value for Pyrolan Fire-Protect KDI (cat. A/d): 30 g/l (2010). Pyrolan Fire-Protect KDI contains a maximum of 0.0 g/l VOC.</p> <p>Delivery viscosity Approx. 11 s in accordance with DIN 53211 (4-mm-cup, 20°C) or approx. 45 - 51 s (2-mm-cup).</p> <p>pH value 5.1 – 5.4</p>
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Safety-related information	<p>Please pay attention to the associated safety data sheet. The current version can be accessed on the Internet at www.adler-lacke.com.</p> <p>The product is only suitable for industrial and commercial processing.</p> <p>The use of protective gloves and goggles is recommended during processing.</p> <p>Do not eat, drink or smoke whilst working.</p>
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