LDC WOOD

THERMOWOOD®

THE NEW FIRE REGULATIONS FOR THE REACTION TO FIRE CLASS OF WOODEN FACADE CLADDING

FROM AUGUST 20, 2024

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Your project with wood cladding is: a single family home or industrial building?

Yes

There are no specific fire class requirements

The building is for:

Self-reliant users.
The required reaction to fire class is D-s3,d1

Our solutions

Without fire retardant treatment by Lemahieu Fire Protection®

New from 20/08/2024

Has the wood been treated via impregnation, chemical or thermal modification (LDCwood® ThermoWood®) and/or surface treatment (oil, paint, varnish, etc.)?

Yes

New rules apply from 20/08/2024 where everything must be tested.

Is any surface treatment used (oil, paint, varnish, etc.)?

Yes

SOLUTION

With a fire-retardant treatment from Lemahieu Fire Protection®, various wood types, profiles and end finishes remain possible.
Our full range can be found on the next page.

No

The facade profiles are made of LDCwood® ThermoWood®?

Yes

SOLUTION

Choose LDCwood® ThermoWood®
> We offer without further tests
according to classification report WFRGent n° 19763G:

- ThermoWood® spruce
- ThermoWood® pine
- ThermoWood® fraké
- ThermoWood® ash
- ThermoWood® Red Oak
- ThermoWood® Radiata Pine

Conditions:

- Closed facade cladding in ThermoWood® with tongue and groove or overlapping.
- Average density of ThermoWood® between 380 and 1.000 kg/m³.
- Flat profiles with minimum thickness = 18 mm.
- Vertically or horizontally placed and mechanically attached on wooden battens (pine or spruce, with a min. density of 450 kg/m³).
- A ventilated air cavity with a min. thickness of 38 mm.
- The substrate behind the air cavity consists of:
  > wood-based panels (class D-s2,d0 or better, min. thickness 10 mm, min. density of 510 kg/m³) or
  > Non-combustible panels (class A2-s1,d0 or better, min. thickness 10 mm, min. density 510 kg/m³).

A rain screen (<1 mm) has no significant impact on the reaction to fire class of closed cladding.

No

SOLUTION

With a fire-retardant treatment from Lemahieu Fire Protection®, various wood types, profiles and end finishes remain possible.
Our full range can be found on the next page.

SOLUTION

Choose:

- solid untreated wood

And comply with the conditions in the CWFT table:

- Closed wooden cladding
- Cladding profile:
  > **flat with a min. thickness of 18 mm** or
  > **ribbed with a min. thickness of 18 mm and a min. thickness of 12 mm on the thinnest part** (on max 25% of the average profile).
- A type of wood with a min. average density of 390 kg/m³.
- The cladding is placed on a substrate with at least fire class A2-s1,d0 (= non-combustible) with a min. density of 10 kg/m³ (for exemple mineral wool).

For your information:
PIR and PUR don't have class A. In that case, it is necessary to add a panel with fire class A2-s1,d0.

No

With fire retardant treatment by Lemahieu Fire Protection®

SOLUTION

With a fire-retardant treatment from Lemahieu Fire Protection®, various wood types, profiles and end finishes remain possible.
Our full range can be found on the next page.

No

Non-self-reliant users.
The required reaction to fire class is C-s3,d1

Large-scale test required

High building h > 25 m

Medium-high building 10 m < h < 25 m

Low building h < 10 m

THE IMPORTANCE OF A DOP

A DOP is a *declaration of performance* stating what properties a construction product complies with. It is a compulsory document for any finished product placed on the market. The DOP must state the reaction to fire class.

All planed facade profiles from LDCwood® have a DOP.
If you plane rough sawn timber or ThermoWood® to a finished product yourself, you are responsible the DOP.

CERTIFIED PRODUCT RANGE
WITH FIRE RETARDANT TREATMENT

SOLID WOOD

Type of wood	Density	Min. thickness	Reaction to fire class
Spruce	355-536	15-42 mm	B-s1,d0
Pine	450-600	15-42 mm	B-s1,d0
Western Red Cedar	316-494	15-42 mm	B-s1,d0
Larch	550-630	15-42 mm	B-s1,d0
Ayous	330-530	15-42 mm	B-s1,d0
Western Red Cedar	350-450	12,5 mm	B-s2,d0
Ash	650-850	15-42 mm	B-s1,d0
Fraké	430-730	15-42 mm	B-s1,d0

According to classification: EN 13823 (SBI) and EN 14135:2004
With or without a ventilated air cavity between the product and the substrate or without cavity.

THERMOWOOD®

Type of wood	Density	Min. thickness	Reaction to fire class
ThermoWood® spruce	314-434	15-42 mm	B-s1,d0
ThermoWood® ash	590-680	15-42 mm	B-s1,d0
ThermoWood® pine	450-500	15-42 mm	B-s1,d0
ThermoWood® ayous	269-374	15-42 mm	B-s1,d0
ThermoWood® ayous	305-470	15 mm	B-s2,d0 / B-s3,d0
ThermoWood® fraké	410-730	15-42 mm	B-s1,d0
ThermoWood® poplar	350-500	15-42 mm	B-s2,d0

According to classification: EN 13501-1:2018 and EN 13501-1:2020
According to test: EN 13823 (SBI)
With or without a ventilated air cavity between the product and the substrate or without cavity.

HARDWOOD

Type of wood	Density	Min. thickness	Reaction to fire class
Oak	500-750	20 mm	B-s1,d0
Sapele	325-690	15 mm	B-s1,d0

According to classification: EN 13501-1:2018 and EN 13501-1:2020
Conform test: EN 13823 (SBI) and EN 14135:2004
With or without a ventilated air cavity between the product and the substrate or without cavity.

MODIFIED WOOD

Type of wood	Density	Min. thickness	Reaction to fire class
Accoya	400-600	19 mm	B-s1,d0

According to classification: EN 13501-1:2018 and EN 13501-1:2020
According to test: EN 13823 (SBI)
With or without a ventilated air cavity between the product and the substrate or without cavity.

More products are available and we are constantly expanding our certifications.
Contact us for more information.

CERTIFIED SURFACE COLOUR TREATMENT
WITH FIRE RETARDANT TREATMEN

Instead of waiting for the natural patina of wood to appear, it is possible to give the wood a vintage look that "ages" the surface. The vintage finish creates a transparent or semi-transparent film. With colour coatings and wood protector, you give the wood the look that matches your project.

COLOUR COATING WITH SHERWIN WILLIAMS*

Type of wood	Density	Min. thickness	Ventilated air cavity	Reaction to fire classe
Solid wood	355-536	19 mm	40 mm	B-s1,d0
ThermoWood®	450-500	19 mm	40 mm	B-s2,d0

Sherwin Williams SC1420 + EG1570 on wood treated with Burnblock® , certified B-s1,d0

PRE GREYING WITH MASQUELACK

Type of wood	Density	Min. thickness	Ventilated air cavity	Reaction to fire classe
Solid wood	355-536	19 mm	40 mm	B-s1,d0
ThermoWood®	450-500	19 mm	40 mm	B-s2,d0

Masquelack on wood treated with Burnblock® , certified B-s1,d0

WOOD PROTECTOR WITH SIOO:X

Type of wood	Density	Min. thickness	Ventilated air cavity	Reaction to fire classe
Solid wood	355-536	19 mm	40 mm	B-s1,d0
ThermoWood®	450-500	19 mm	40 mm	B-s2,d0

Sioo:X Wood Protector + Sioo:X Surface Protector on Burnblock® B,s1-d0 certified wood
Except: ThermoWood® poplar (B-s2,d0)

QUALITY AND TAILORED ADVICE

Our wide-ranging knowledge, innovative techniques, and sustainable materials cohere to guarantee ecologically sound applications for indoors and outdoors.

We can guarantee the highest quality and tailored advice based on our know-how and product knowledge. We create tailored solutions for the specialised timber trade with precision and passion.

Do you want more information about our products or already know exactly what you want to put in our capable hands? You are welcome to contact us.

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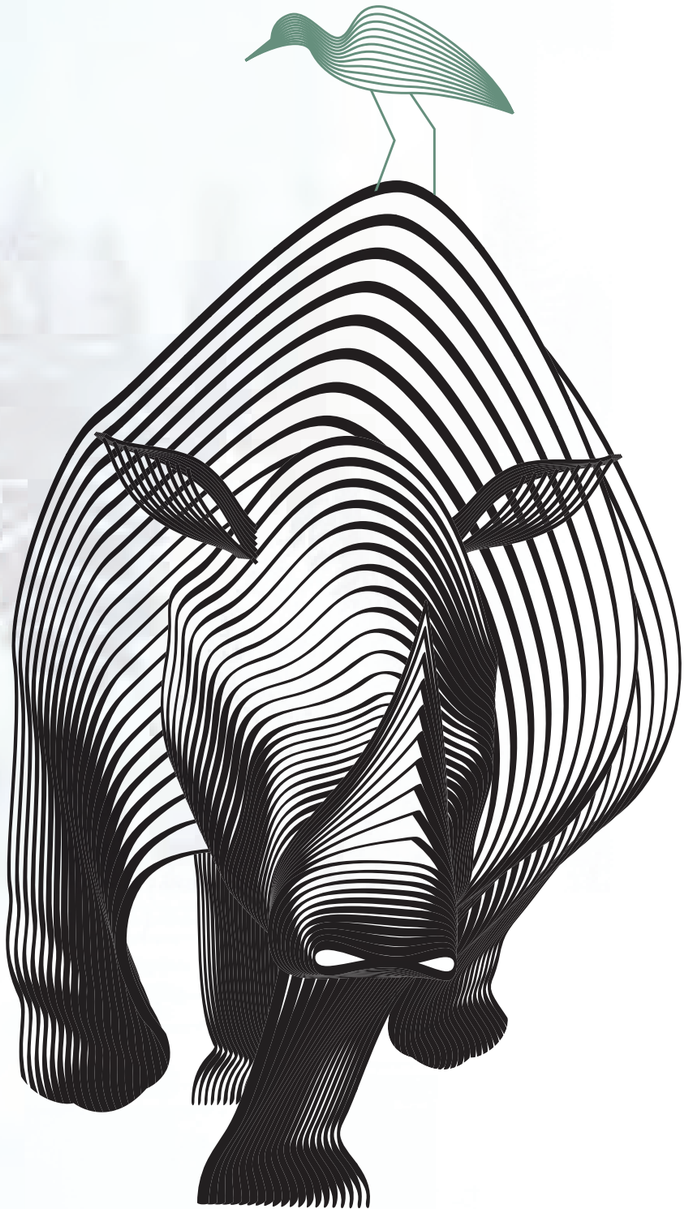
LDC WOOD

THERMOWOOD®

PROTECTED BY NATURE



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