



LUNAWOOD

Fire retardant Lunawood

Fire Retardant Lunawood

- Using the non-toxic pressure impregnation Burn Block® method, Lunawood Thermowood products achieve the required EN 13501 Euroclass B of the claddings, which is common fire regulation in several countries
- Impregnated fire retardant does not leach and thus maintenance is not required
- BurnBlock® fire protection is also suitable for indoor applications
- Fire safety regulations should be always checked with the local fire safety authorities

Hotel Popal, Netherlands
Architect: MONK architecten
Product: Fire retardant Luna Panel System & Luna Triple 32x140

What does EN 13501 – reaction to fire mean?

Fire protected Lunawood Thermowood products achieve
B-s1,d0 or **B-s2,d0**

Contribution to fire

A1 No contribution to fire (ex. Steel or stone)
A2 Extremely limited contribution (ex. Mineral wool)
B Very limited contribution (Fire retardant wood)
C Limited contribution (Gypsum board with wallpaper)
D Products will contribute in the fire to an acceptable extent (untreated wood)
E Products' reaction to fire performance is acceptable (Synthetic materials ex. Polyester)
F No reaction to fire performance is determined

Smoke production

s1 Very limited smoke production
s2 Limited smoke production
s3 Does not meet s1 or s2 standards

Flaming droplets

d0 No flaming droplets or particles
d1 Flaming droplets or particles extinguish quickly.
d2 The formation of flaming droplets or particles does not meet the requirements of class d0 or d1.

Fire Protection

- Using pressure impregnation method, Lunawood Thermowood can be fire protected to achieve the required EN13501 fire class B
- Products that achieve the fire class **B-s1,d0**
 - Plained, flat T&G profiles
- Products that achieve the fire class **B-s2,d0**
 - Lunawood 3D profiles
- Fire protection does not effect to the visual appearance of Lunawood Thermowood
- Painted fire protected products are also available
 - Painting must be done by a CE-certified painter e.g. not at the construction site
- Painting affects to smoke production s1 → s2



Surface Treatment

Fire protected Lunawood after 3 years

Himmelbyen, Denmark
Architect: The Seasons

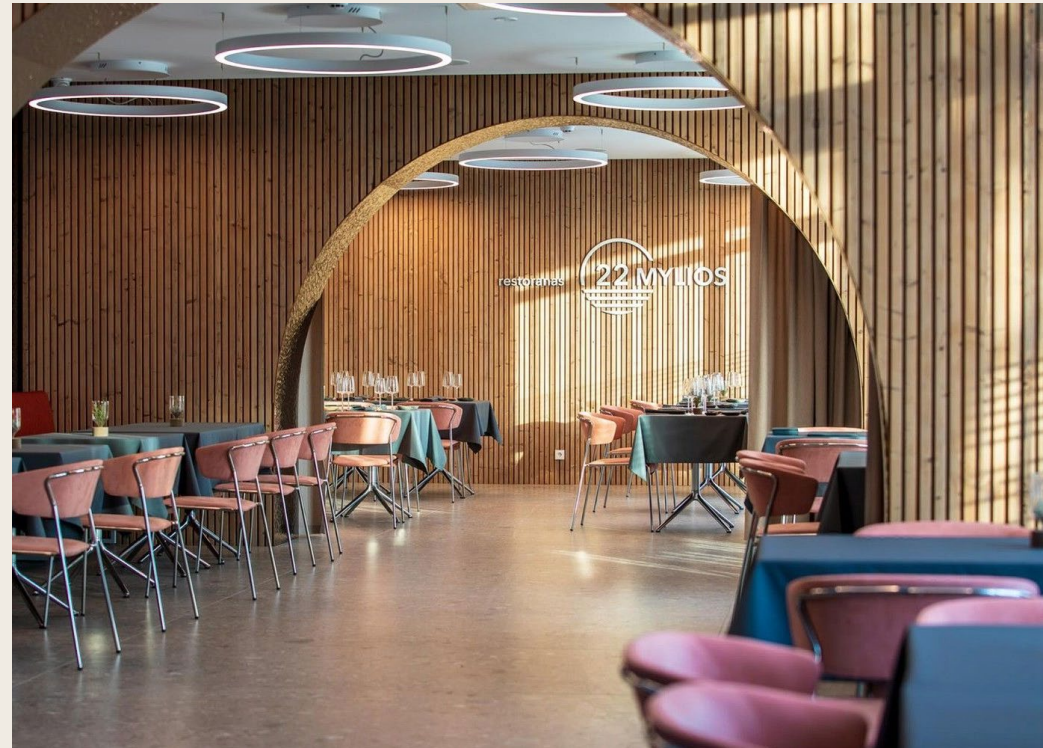
Fire retardant Lunawood

Exterior – min. B-s2,d0



Project: Himmelbyen, 2017-2019 by The Seasons
Photo: ©Bergsten Timber AS

Interior – min. B-s1/s2,d0



Project: Spa Hotel Nida by Katedra & Archispektras.
Photo: Neringos apartamentai

Differences in smoke production – s1/s2

B-s1,d0

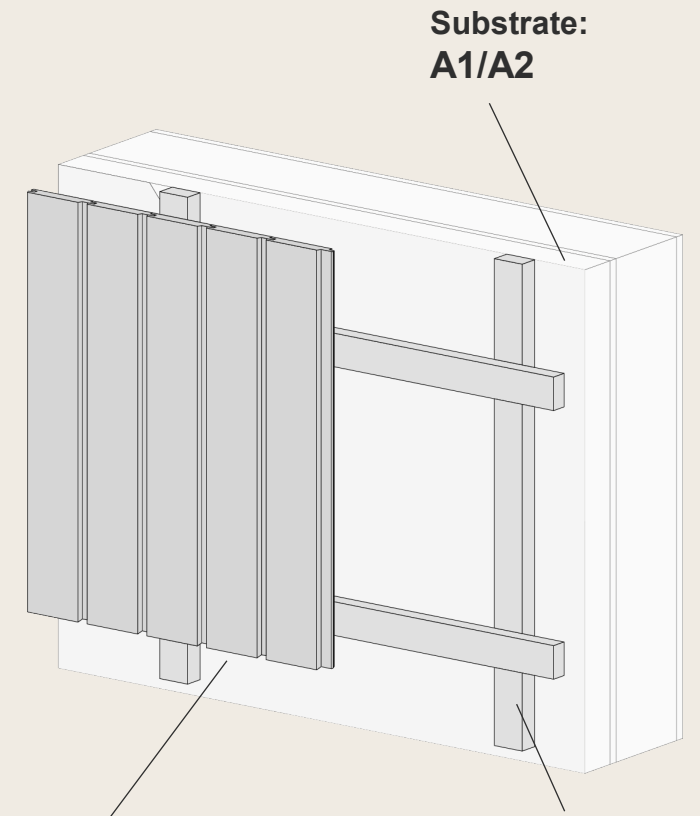
Luna UTS 19x117
Luna UTV 19x117/140
Luna TGV 19x140
Luna Layer 19x142/188 Brushed
Luna Vivo 19x188
Luna Panel System 19x68
Luna Panel System 19x117
Luna Panel System 19x165
Luna Panel System 26x92
Luna Panel System 42x68
Luna Pure HN 20x142
Luna Trim HN 20x142
Luna Trim HN 20x142 Brushed
Luna Bevel HN 26x142
Luna UYLS 20x140

B-s2,d0

Luna Triple 32x140
Luna Dual 26x142
Luna Femma 26x142
Luna Trio 26x92
Luna Duple 32x140
Luna Duo 32x140
Luna Aalto 32x142

Construction principles of Lunawood cladding

- Substrate needs to meet fire classification of A1 or A2-s1,d0 according to Declaration of Performance (DoP) documents
- The supportive battens need to meet fire classification of D, which includes commonly used wood species, like Nordic spruce
- The cladding ought to meet fire classification of B
- There is no ventilation gap restrictions in closed structures, i.e. for tongue&groove products. Follow Lunawood installation guide for Facade instructions → min. 25 mm air cavity gap
- Open structure needs to be fire tested separately
- Consult always your local fire safety authorities



Cladding:
B
e.g. fire protected Lunawood

Battens:
D

Fixing:
Nails and screws according to Lunawood

Fire retardant and surface treated Lunawood

Lunawood offers also painted fire protected products

- Painting must be done by a CE-certified painter e.g., not at the building site
- CE-certified painting process enables maintaining fire class after industrial painting by Lunawood's subcontractor **Icoma Oy in Finland**

Full documentation + maintenance scheme provided

- All documentation is shared to guarantee the fire class after impregnation + painting, including what maintenance that needs to be done over time


Available in black and pre-greyed colours

IMPORTANT NOTE: Anything you add to the wood surface could change the fire rating and thus solution needs to be tested separately



Certification of Fire Retardant Lunawood

- Declaration of Performance documents for Lunawood products can be used as the certificate for Fire Retardant Lunawood Thermowood
- Lunawood DoP documents are available in the Download Centre at lunawood.com
 - [Declaration of Performance No. 009 – Fire protected T&G Pine](#)
 - [Declaration of Performance No. 010 – Fire protected T&G Spruce](#)
 - [Declaration of Performance No. 011 – Fire protected 3D](#)

Lunawood ThermoWood® 

Document name: Declaration of performance: Fire protected ThermoWood® Cladding and Paneling	Document nr. No 011	Page 1 of 2
Documented by: Jussi Vartiainen, Product Manager	Version 1	
Approved by: Arto Halonen, CEO	Original document: 20.12.2022	Version updated: 21.02.2023

Declaration of Performance No 011

1. Unique identification code of the product type:
Fire protected Thermally modified 3D massive wood boards from Nordic Spruce (Picea Abies) for exterior end-use applications. Thermal modification treatment class Thermo-D, EN 14915:2013.

2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 17(4):
26 - 42 x 42 - 192 mm
Wall cladding for external use


3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:
Wooden wall and ceiling covering in exterior end-use applications. Horizontal and vertical installation with horizontal and vertical joints. Any end use substrate of Euroclasses A1 or A2-s1,0 x 12 mm, density > 525 kg/m³

4. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 17(5):
Oy Lunawood Ltd
Aleksanterinkatu 25A
15140 Lahti
Tel: +358 44 789 5012
Web: www.lunawood.com

5. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:
AVCP system 1

6. In case of the manufacturer's declaration concerning a construction product covered by a harmonized standard:
Finnish Oy. Notified certification body no. 2412 has performed initial inspection of the manufacturing plant and production control and performs continuous surveillance, assessment and evaluation of factory production control under system 1 and issued the certificate of conformity of factory production control: 2412-CPR-1014.

Durability Class
Notified body: Georg-August-Universität Göttingen Wood Biology and Wood Products (2014-110)


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7. Declared performance:

Essential characteristics	Performance	Harmonized technical specification
Wood species	Spruce (Picea Abies)	EN 14915:2013
Density	470 kg/m ³	
Min. Thickness	25mm	
Reaction to fire	B-s2,d0	
TVOC	<1mg/m ³	
Formaldehyde class	E1	
Treated against fire	Class 2	EN 14915:2013
Natural durability class	Use Class 3	
Name of fire retardant chemical	Fire retardant ThermoWood®	

Signed for and on behalf of the manufacturer by:

Arto Halonen, CEO
Itäsalmi, 27 February 2023 

Find more inspiration on Social Media

