# **THERMORY**®

Data sheet Thermally modified spruce cladding

# PROFILE C15

A durable softwood with rustic charm.

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Thermory's thermally modified spruce is a softwood solution that offers exceptional rot resistance and longevity.

With its low moisture absorption, thermo-spruce twists, cups and bends less than untreated wood in outdoor use, with less shrinkage and expansion.

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Our thermo-spruce cladding range creates a naturally rustic appearance with beautiful visible knots.

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Thermo-spruce is an affordable material that's perfect for demanding climatic conditions and is suitable for a variety of surface treatments and finishes.

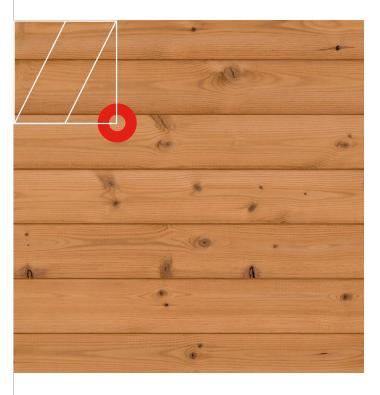
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The decking is available with extra-wide boards that show-case thermo-spruce's impressive stability and enable quick installation with fewer visible gaps.

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C15

We offer thermo-spruce cladding with the Nordic Swan Ecolabel.



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DIMENSIONS (COVERING WITH); MM

VI

FIXING: END JOINT:

Optional

20 x 186 (175)

Hidden/visible

SPECIES INFO:

THERMAL MODIFICATION

Intense 215 °C

STANDARD LENGTHS:

3.0 - 5.7 m; lengths are subject to availability

WOOD SPECIES

Norway Spruce (Picea abies)

COMMONLY USED CUSTOMS CODE

44091018





CHARACTERISTICS OF THERMA	LLY MODIFIED	SPRUCE (SAWN, PLANED AND PROFILED):	CORRESPONDING STANDARD/TEST REPOR
DURABILITY CLASS (CATAS)		1 - very durable	EN 350:2016
USE CLASS		3.2 – exterior, above ground, exposed to the weather prolonged wetting conditions.	EN 335:2013
REACTION TO FIRE CLASSIFICATION:  - thickness: ≥18 mm  - min thickness within profile: 9 mm  - valid for profiled claddings and straight edged boards without air gap  - without surface coating		B-s1, d0; B-s2, d0 and B-s3, d0 with EN 16755 non-leaching compliancy available upon request	EN 13501-1:2018
INITIAL MOISTURE CONTENT (%)*		7 ± 2	Internal factory test 01:10.2022
OVEN-DRY DENSITY (KG/M³)*		400.6 ± 8.9	ISO 13061-2:2014
EQUILIBRIUM MOISTURE CONTENT AT 21°C, (%)* AT:	RH 35%	4.6 ± 0.3	ISO 13061-1:2014
	RH 60%	7.8 ± 0.2	
	RH 90%	13.5 ± 0.4	
SWELLING FROM OVEN-DRY DIMENSIONS IN RADIAL FIBRE DIRECTION AT 21 °C (%)* AT:	RH 35%	0.5 ± 0.1	ISO 13061-15:2017
	RH 60%	0.8 ± 0.1	
	RH 90%	1.1 ± 0.1	
SWELLING FROM OVEN-DRY DIMENSIONS IN TANGENTIAL FIBRE DIRECTION AT 21 °C (%)* AT:	RH 35%	1.5 ± 0.1	
	RH 60%	2.2 ± 0.1	
	RH 90%	3.1 ± 0.1	
BENDING STRENGTH (N/MM²)*		43.3 ± 1.8	EN 408:2010
MODULUS OF ELASTICITY (N/MM²)*		10269 ± 270.4	EN 408:2010
COMPRESSIVE STRENGTH (N/MM²)*		41.8 ± 1.8	EN 408:2010
SCREW TRACTION RESISTANCE (N/MM²)		10.6 ± 0.6	EN 1382:2016
JANKA HARDNESS (N)*		1129 ± 52.8	ISO 13061-12:2017
BRINELL HARDNESS (N/MM²)*		12,16	EN 1534:2010
SCRATCH RESISTANCE (N)*		0.2	EN 15186:2012
ACIDITY (PH)*		3.62	ISO 6588-2:2021

\*The values given are the mean results of testing, apply only in the aforementioned conditions and are not partially applicable.

#### **THERMORY**<sub>®</sub>

CHARACTERISTICS OF THERIVIALET IVIC	DDIFIED SPRUCE (SAWN, PLANED AND PROFILED):		
COLOR	Golden Brown. Colour variations in thermally modified wood are a result of variations in growth conditions of the tree and are fully acceptable. Wood will weather to grey unless an UV resistant coating is applied and maintained.		
COATING	Many colour options available. Please contact our sales team for further information.		
GRADING	Grades "Natur" and "Country"	Grading rules, installation and maintenance manuals are at:	
SURFACE	Planed, brushed and embossed surface possible on Thermory Spruce Cladding.		
EPD (RTS)	THERMALLY MODIFIED SOFTWOOD WITHOUT SURFACE COATING	GWP – BIOGENIC A1-A3: -7.83E1 kg CO₂e per 1 m³	
	THERMALLY MODIFIED SOFTWOOD WITHOUT SURFACE COATING	GWP – BIOGENIC A1-A3: -7.71E1 kg CO₂e per 1 m³	
GENERAL INFO:			
COUNTRY OF ORIGIN	Estonia		
HANDLING	Thermory® cladding boards should be stored inside, out of the sun, rain and other elements. When this is not possible, boards need to be elevated off the ground, stacked uniformly and covered with a waterproof tarp. Leave the ends of the tarp open so moisture is not trapped inside, making certain the stored wood is not subjected to the elements or sun as UV rays will fade the material. Under no circumstances should Thermory® boards, even in original packaging, be subjected to rain or any moisture as they cannot dry properly when stacked and/or packaged.		
WASTE MANAGEMENT	Thermory naturally enhances wood using only heat and steam. Thermally modified wood does not need to be treated as hazardous waste.		
CHAIN OF CUSTODY CERTIFICATION	FSC® and PEFC certified products available - please contact our sales team for available profiles and dimensions.		
MANAGEMENT SYSTEM CERTIFICATIONS	ISO 9001, ISO 14001, ISO 45001		
NORDIC SWAN ECOLABELED	Licence no 4086 0010		

THERMORY® Spruce is produced at 215°C in a special computer-controlled kiln. The process uses only heat and steam, no chemicals are added.

During the modification process, chemical and structural changes occur within the timber which improve some of its basic characteristics. The resulting product is more durable and stable – an ideal material for use in exposed areas such as external facades.



## Leave a lasting impact

THERMORY is a world leader in the thermal modification of wood. We offer high-quality, long-lasting solutions that benefit from environmentally friendly technology. We have spent the past two decades developing our expertise through close collaboration with architects, designers, builders and homeowners – constantly revising our product selection and refining our technology in the process.

THERMORY promotes a transparent and responsible corporate culture. We care about the environment and treat nature with deep respect. Our purchasing process is environmentally responsible, and we exercise high standards for quality and sustainability. Our timber is carefully inspected and harvested from sustainably managed forests. If desired, we can offer PEFC, FSC® or Nordic Swan Ecolabel-certified wood.







As a renewable resource that is both durable and an excellent insulator, wood is one of the most environmentally friendly choices for your construction pro-









jects. If you think it's important to protect our valuable resources long into the future, then we're on the same mission. We create lasting value, because we want to leave behind a more harmonious and sustainable world.

## REAL WOOD PRODUCTS WITH BEAUTY AND STABILITY IN EVERY FIBER

- DECKING
- CLADDING
- INTERIOR
- SAUNA





Thermory's project 'Development of Resource-efficient Painted Thermally-modified Wood' is financed in cooperation with Enterprise Estonia (EAS) and the Norwegian Green ICT financing mechanism.

Last updated: May 2024. All previous vearsions are null and void.



