

Finnjoist® FP+



Metsä Wood Finnjoists FP+ (FJI FP+) are 'I' shaped engineered wood products used as joists, rafters and columns. They have excellent strength to weight ratio, high thermal performance and are easy to install.

Finnjoists FP+ are used in thermally high performing structures, can be used in passive house construction, and are adopted in the UK's Structural Timber Association's Product Paper 4 to achieve a 2 points in the floor assembly for fire under construction.

The composite structure consists of LVL (laminated veneer lumber) top and bottom flanges and OSB (oriented strand board) web and an A1 rated insulation adhere to the web.

The web and the flange are bonded together with a structural water-resistant adhesive to EN 301:2023. The web and the insulation are bonded together with a water-resistant adhesive to EN 301:2023. The LVL flanges resist bending, the OSB web provides outstanding shear resistance and the insulation thermal protection to the web. The combination of high-quality raw materials ensure a robust, versatile and economical framing member that is easy to install in a wide range of construction projects.

MAIN APPLICATIONS

Finnjoists are used as floor and roof beams in residential, office, educational and light-industrial buildings. In timber frame construction where the existing neighbouring buildings are so close that Finnjoists FP+ can also be used in high thermally performing walls as studs and roofs as rafters to allow insulation levels for a passive house type construction. The composite structure of Finnjoists ensure straight and light-weight product with excellent strength properties enabling long spans in construction and easy installation and service supply.

MAJOR ADVANTAGES

- Light and straight
- Dimensionally stable
- Great workability and quick to install
- Easy to fasten, staple, screw and nail using conventional woodworking tools
- Easy to install large service holes through the web
- Ensures material efficiency with standardised product dimensions
- Easy to design with free Finnwood design software
- Made of sustainable northern wood and PEFC certified
- Responsibly sourced Northern Timber

APPROVALS AND DESIGN PROPERTIES

Finnjoist is CE marked and the design properties are determined according to ETA 02/0026. The design properties given in the Declaration of Performance (DoP) are to be used for structural calculations with EN 1995 (Eurocode 5). The DoP documents can be downloaded from www.metsawood.com/dop. Finnjoist FP+ production is managed according to the principles of standard ISO 9001. The quality and the constancy of performance of the product is controlled by regular third party inspections and audits.

BONDING

Finnjoists are bonded with weather and boil resistant MUF adhesive in the flange-web joint and in the web-web joint. After cold pressing the joists are cured in a curing chamber, where the adhesive cures as thermoset plastic, and therefore is inert and non-hazardous to humans and animals.

Insulation is bonded with PU adhesive between the web and the insulation.

PACKAGING

Products are packed in moisture-resistant plastic packing hoods. Packages can be stored outside temporarily. Longer-term storage is recommended under cover in dry conditions.

STANDARD SIZES

SECTION SIZE	LENGTH	PACK SIZE
FJI 45x240-36 FP+	12m	26
FJI 53x240-36 FP+	12m	22
FJI 69x240-36 FP+	11m	17
FJI 96x240 FP+	11m	12

For non-standard sizes please contact the Metsa Wood sales representative

OVERALL DIMENSIONS

	MINIMUM (mm)	MAXIMUM (mm)
Width bf	45	96
Flange depth hf	36	45
Depth H	160	600
Length L	8,000	14,000

STANDARD TOLERANCES

	MINIMUM (mm)	MAXIMUM (mm)
Overall joist depth H	-1.5 mm	+1.5 mm
Overall joist length L	-0 mm	+10 mm
Flange width bf	-1.5 mm	+1.5 mm
Flange depth hf	-2.0 mm	+2.0 mm
Web thickness bw	-0.4 mm	+1.6 mm

HEALTH AND SAFETY

Finnjoists FP+ themselves are not a hazardous substance. Contact with Finnjoists therefore does not create a health risk under normal use, although some of the timbers making up the Finnjoists may cause skin irritation or dermatitis to sensitised individuals. Skin contact with some gums or resins, introduction of splinters into the skin, inhalation of disturbed moulds and dusts together with dust derived from sawing can occasionally produce an increased risk of ill health. Wood dust and fibres which will be created during cutting or machining is a hazardous substance and subject to the full provisions of COSHH Regulations. Effective dust extraction systems are recommended to remove dust particles and thereby minimise exposure. Softwood dust is classified as a respiratory sensitiser. Exposure should be kept as low as is reasonably practical and must not exceed the Workplace Exposure Limit (WEL) of 5mg/m³. Exposure to wood dust and fibres may produce adverse reactions, such as skin disorders and respiratory effects.

SPECIAL CONTROL MEASURES

Effective dust extraction will be necessary from areas where wood machining operations are conducted.

PERSONAL PROTECTION

When prolonged machining of Finnjoists is to be undertaken it may be necessary to supplement the dust extraction with approved Respiratory Protective Equipment (RPE). Similarly, during machining, the use of eye protection is recommended where there is a risk of eye injury. IT SHOULD BE NOTED THAT THE USE OF PERSONAL PROTECTIVE EQUIPMENT IS A LAST RESORT AND OTHER FORMS OF CONTROL MUST BE USED WHERE POSSIBLE.

FIRE AND EXPLOSION HAZARD

Extinguisher type - water.

Explosion hazard - none for the raw material, however, airborne dust particles may be present a hazard, therefore, appropriate and effective dust extraction must be in place and maintained. Smoking should be prohibited around wood dust.

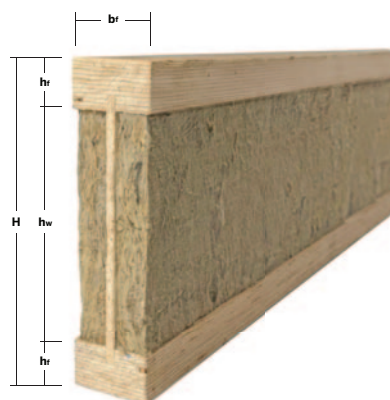
FIRST AID MEASURES

Wood dust in eyes - Flush eyes with water. If any adverse reactions persist, seek medical advice.

Inhalation of wood dust - Remove to fresh air, cleansing nasal passages.

FURTHER INFORMATION

- Finnjoist Declaration of Performance www.metsawood.com/dop
- Finnjoist ETA02/0026



FOR FURTHER INFORMATION

For additional information on this product please visit our website metsawood.co.uk