

Total Reliability of Supply



George Roberts

Worldwide Suppliers of Scaffolding
Access Equipment and Formwork

The Finnforest Corporation is a core business activity of the Metsäliitto Group, producing and marketing sawn timber and highly processed special wood products. The Metsäliitto Group's parent company is a co-operative of over 131,000 family forest owners. The members own about 46% of Finland's commercial forests. The majority of the timber procured is from within the Group giving us the benefit of knowing the origin of our wood, economies of scale and greater supply chain control than can normally be expected.



Timber Procurement

The most important issue for Finnforest is the sourcing of raw material. Finnforest, as a core business activity of Metsäliitto, supports forest certification as a valuable instrument for demonstrating that the wood products have originated from sustainable sources. Finnforest are fully committed to encouraging and promoting sustainable forestry practices. Forest certification and Chain of Custody give customers the confidence that the timber they purchase is from well-managed forests. BM TRADA externally audits Finnforest UK for Chain of Custody and traceability for all our certified timber.

Corporate Responsibility

Finnforest UK recognises and acknowledges that social, environmental responsibilities, quality and health and safety are all important to corporate productivity and profitability, and are part of a sound business strategy.

Environment and Chain of Custody

The Company will identify and minimise the environmental impacts of current and new products, which meet criteria set by such standards as the Q Mark and ETA specifications. Finnforest's Chain of Custody certification provides evidence that the timber originates from certified, well-managed forests, and verifies that these products are not mixed with products from uncertified forests at any point in the supply chain. Our PEFC certification provides an assurance mechanism to purchasers of our products that they are promoting the sustainable management of forests.

Investment in People

We recognise that every business depends on people. The custom built Timber Training Academy is used for training both our customers' staff and Finnforest employees. We deliver accredited training courses to our employees and customers as part of this process and to promote best practice.

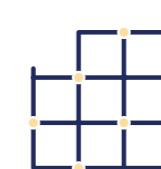
Quality

Finnforest Kerto® is manufactured under the procedures of the VTT184/03 certificate and the EN 14374.



Local Stockist

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Kerto®, the high technology wood product for advanced engineering, is a weather-resistant laminated product.



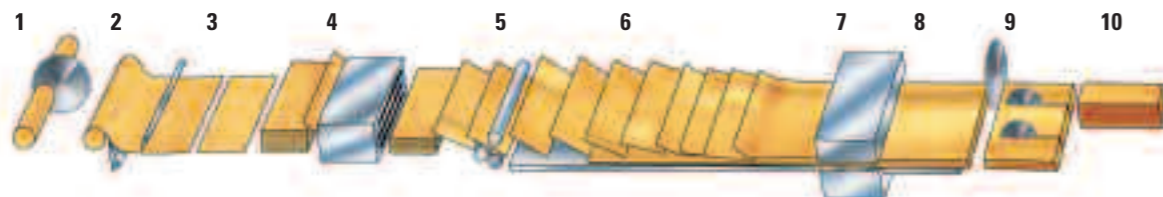
- INDIVIDUALLY PROOF-TESTED
- ENHANCED DURABILITY AND SAFETY (OSHA/ANSI/EN/BS)
- MEETS INDUSTRY STANDARDS
- STAMPED AS 'SCAFFOLD PLANK'
- EXCELLENT STRUCTURAL RIGIDITY
- PREDICTABLE STRENGTH
- LIGHTEST IN WEIGHT
- LONGER LENGTHS - FEWER TRIP HAZARDS AND GREATER SPANS (POTENTIAL SAVINGS ON UPRIGHT MEMBERS)
- NO METAL STRAPS REQUIRED
- LOW MAINTENANCE
- PERFECT FOR PETROCHEMICAL AND GAS INDUSTRIES
- ELECTRICAL INSULATION PROPERTIES
- ANTI-CORROSIVE AND CHEMICAL PROPERTIES
- IDEAL FOR USE WHERE LAYOUTS INHIBIT MODULAR SYSTEMS
- LOW INERT TEMPERATURE

PRODUCTION

It is produced from 3mm thick, rotary peeled softwood veneer layers of Spruce, glued together using a WBP glue to form a continuous 2.5 metre wide billet, with thicknesses ranging from 27 to 75mm and a maximum length of 26 metres. The billet is then hot pressed and cut to size to make beams, planks, posts or panels, or processed into a variety of other products.

PROPERTIES & BENEFITS

Kerto® is a strong and dimensionally precise product which does not warp or twist. It derives its high strength from the homogeneous structure which also keeps the effects of any defective single veneers down to a minimum.



- | | | | |
|------------------|----------|-----------------|----------------|
| 1 Sawing | 4 Drying | 7 Hot Press | 10 Dispatching |
| 2 Rotary Peeling | 5 Gluing | 8 Cross-cutting | |
| 3 Clipping | 6 Layup | 9 Rip-sawing | |

AVAILABILITY

Standard Sizes			
Thickness	Width	Length	Weight (kg/m)
33mm	225mm	2416 - 7315mm	3.60
39mm	225mm	2416 - 7315mm	4.25
63mm	225mm	2416 - 7315mm	6.87

Note: Other thicknesses, widths and lengths are available on a custom order basis.

When it comes to construction site safety, your workers deserve the best. Master Plank® is an engineered wood product designed specifically for use as a scaffold board. The unique process by which it is manufactured disperses the inherent defects found in solid-sawn timber. Natural characteristics such as knots and wane are randomised to maximise strength and minimise warping and splits.

Master Plank® is homogeneous, has superior strength properties and is proof-tested to ensure compliance to the OSHA and ANSI A10.8-2001 Standards and is stamped accordingly.

Manufactured from Nordic spruce veneers, it is the lightest weight laminated wood scaffold plank on the market and is remarkably durable due to its use of carefully selected spruce veneers and waterproof exterior adhesive. It is manufactured under the ISO 9001 Quality Certification System and VTT Certificate No.184/03.

You can be sure of Master Plank®'s environmental credentials. Being a Finforest product it is manufactured from forests managed and certified according to PEFC environmental standard and backed by Finforest's Chain of Custody.

MASTER PLANK® SCAFFOLD SPAN & LOAD TABLES

Single Span L/60 (millimetres)			
Load Condition	33 x 225	39 x 225	63 x 225
50 PSF	2652	3200	4975
75 PSF	2330	2743	4395
One Man Load	2510	3190	6100
Two Man Load	2072	2591	4710
Three Man Load	1650	1829	3920

Above span table based on L/60 per OSHA requirements.

Load Table						
	33 x 225		39 x 225		63 x 225	
	UDL	PL	UDL	PL	UDL	PL
	kN/m ²	kN	kN/m ²	kN	kN/m ²	kN
1200	19.50	2.95	27.30	4.05	46.00	7.60
1500	12.45	2.30	17.40	3.25	36.00	6.80
1800	7.95	1.90	12.00	2.70	30.00	6.00

L/60 deflection limit.
Applicable for single span and continuous planks.
UDL calculated with 3 load combinations.
PL calculated with 7 load combinations.
One PL allowed in each span.
UDL = uniformly distributed load.
PL = point load.

SPECIFICATIONS

GENERAL

Master Plank® is a laminated construction of Spruce veneers certified under the Programme for the Endorsement of Forestry Certification (PEFC). It is composed of various qualities of veneer arranged to obtain optimum utilisation of each veneer to develop maximum strength and reliability. All veneers are oriented with the grain parallel to the long dimension of the billet, and is commonly referred to as Laminated Veneer Lumber (LVL).

Dimensions and Composition			
Nominal Thickness (mm)	33	39	63
Widths	92mm to 610mm		
Lengths	2.4m to 24.0m		
Number Plies	11	13	21
Thickness of Plies	3.0mm		

MATERIAL

Veneer Plies: Face, back and inner plies are all of the same species and meet PEFC requirements.

Species: Norway Spruce (Picea Abies).

Thickness: The thickness of each veneer is nominal 3.0mm.

Weight/Mass: 510kg/m³

CONSTRUCTION

Glue Bond Requirements: Exterior grade WBP phenol adhesive.

Grain Direction: All veneers are oriented with the grain parallel to the long dimension of the billet.

Veneer Joints: All individual veneer joints are scarfed and staggered.

MANUFACTURE

Finished Product

Widths: Widths are cut within tolerances given, with arrised/eased edges, and including permanently indented branding showing mill identification, month/year of manufacture, OSHA/ANSI and customer brand (if required).

Lengths: Lengths are cut within tolerances given, and with square clear edges, including colour edge sealant paint for easy identification and enhanced durability.

Surface: Surface may be sanded or unsanded as required by order. Surface (face) veneer may be graded A (clear) if requested. To enhance dimensional stability, seal coating can be provided upon request.

QUALITY CONTROL AND ENVIRONMENTAL CREDENTIALS

Master Plank® is manufactured under the VTT 184/03 quality certification scheme. Quality control is under the supervision of the Technical Research Centre of Finland, Helsinki, Finland (VTT).

FIRE PERFORMANCE

Based on testing carried out by the Technology Research Centre of Finland (VTT), the charring rate for Master Plank® is better than other softwood species used in construction. Flame/fire retardant treatments are available upon request.

ALTERNATIVE USES

Kerto® is also used as beams, joists, lintels or rafters under dry conditions of use, staging, bleacher seats, cross arms, ladder rails, stair stringers and other industrial applications such as door components.

LOOKING AFTER YOUR MASTER PLANK® SCAFFOLD PLANKS

Proper care, storage, maintenance and handling are the best means of assuring safe performance of your Master Plank® scaffolding plank.

Your Master Plank® is a strong and reliable scaffolding plank backed up by VTT certification. But, like all materials subject to the wear-and-tear of regular use, they must be properly maintained. The better the care, the longer your planks will last.

By following these maintenance guidelines, you will get the most from your investment in Master Plank® – a long and safe working life.

REGULAR INSPECTION IS VITAL

No matter how rigorous your Master Plank® maintenance routine, you must still inspect each plank on a regular basis. Inspection gives you a chance to remove and discard planks that are reaching the end of their safe working lives. If appropriate, you should back up a physical inspection with strength testing.

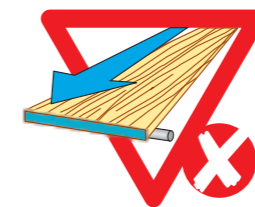
DO NOT USE ANY PLANK WHICH HAS BEEN WORN, DAMAGED OR MISUSED UNTIL YOU HAVE SATISFIED YOURSELF THAT IT IS SAFE.

MISUSE LEADS TO DAMAGE

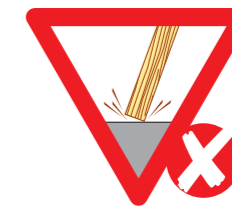
The easiest way to shorten the life of a Master Plank® is to damage it through misuse:



**DO NOT EXCEED THE
MAXIMUM SAFE
PLANK LOAD.**



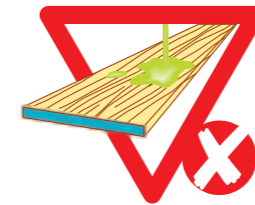
**DO NOT EXCEED THE
MAXIMUM SAFE
PLANK SPAN**
(as specified by your scaffold designer).



**DO NOT DROP
YOUR PLANKS.**



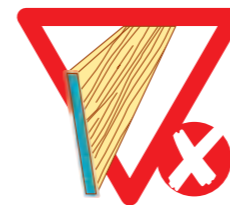
**DO NOT DROP HEAVY
MATERIALS ON YOUR
PLANKS.**



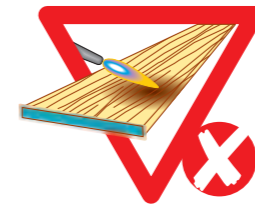
**DO NOT SPILL STRONG OR
CORROSIVE CHEMICALS
ON YOUR PLANKS.**



**DO NOT JUMP ON
YOUR PLANKS.**



**DO NOT USE YOUR
PLANKS FOR ANY
PURPOSE OTHER THAN
AS SCAFFOLD PLANKS.**



**DO NOT ALLOW
OXYACETYLENE CUTTING
OR WELDING TO CAUSE
BURNS TO YOUR PLANKS.**



**DO NOT DRIVE
VEHICLES OR PLANT
OVER YOUR PLANKS.**

If a Master Plank® does suffer any form of misuse (including misuse of a type not specified in the preceding list), you should check it immediately. Bear in mind that fractures and other internal damage may not be visible. If in doubt, put your plank through a strength test.

CAREFUL STORAGE

Store your planks under cover. Do not let the rain get to them. Store wet planks somewhere dry and well-ventilated. Stack them clear of the ground on level bearers. Insert spacers between the layers to let the air circulate. Use at least three bearers or spacers for each layer, making sure that the bearers and spacers are aligned vertically. Store dry planks indoors on at least three level bearers to keep them clear of the ground. There's no need for spacers between layers. Store dry planks outdoors under cover, stacked and ventilated as if they were wet planks.

ACIDS AND ALKALIS

In general, acids and alkalis within the pH range 2 (acids) to 10 (alkalis) will not harm your Master Plank® but strong acids or alkalis outside that range will, over time, reduce the strength of your planks by breaking down their lignin binding. Test these planks for strength on a regular basis.

FUNGAL ATTACK

In normal use, your planks are unlikely to stay wet or damp long enough to suffer fungal attack. Problems set in when planks remain wet or damp for a period measurable in months. This is most likely to occur when stored badly, i.e. too close together and with poor ventilation.

Do not use planks that come straight from damp or badly ventilated long-term storage. Dry them out, then test for strength.

Discard (and recycle where possible) any planks that show signs of fungal decay.

IT'S NOT JUST ANY SCAFFOLD PLANK - manufactured like plywood, Kerto® LVL (Laminated Veneer Lumber) scaffold boards are comprised of wood veneers which are bonded together in an undirectional fashion with exterior-type adhesive. The strength of each plank is optimised and the technical properties are predictable because the knots and defects - inherent in normal solid sawn lumber - are dispersed throughout the entire product. Given proper care and handling, workers can comfortably rely on Master Plank® LVL scaffold boards for optimal safety and performance.

MASTER PLANK® SCAFFOLD PLANKS ARE ONLY INTENDED FOR USE AS SCAFFOLD PLANKS - i.e. for the support of persons, equipment and materials on scaffold constructed loaded in accordance with VTT Certificate 184/03.

USE FOR ANY OTHER PURPOSE VOIDS CONTINUED USE AS SCAFFOLD PLANKING

Master Plank® used for any other purpose (or subject to trauma) should:

- Have edge labelling on both sides planed off.
- Be indelibly and permanently marked by painting or stencilling as no longer suitable for use as a scaffold plank.

TYPICAL DEGRADATION EFFECTS AND GUIDELINES FOR CONTINUED USE

CONDITION	APPEARANCE	POSSIBLE CAUSE/EFFECT	NECESSARY ACTION
Mould.	On surface.	Indicates onset of fungal attack which may have become sufficiently established to result in loss of strength.	Do not use planks. Await validation for continued use. Wash mould off and then allow to dry, examine for soft patches or other evidence of decay. If there is no decay, proof test and return validated planks for service.
Burns.	In aggregate, more than 75mm across the width of the plank and less than 1mm maximum depth.	Welding slag or torch burns causing loss of section and loss of strength.	Proof test plank to validate for continued use.
	In aggregate, more than 75mm across the width of the plank and more than one veneer thickness or (3mm) maximum depth.	As above.	Either remove defect by cutting off affected portion or discard plank.
Saw cuts.	In aggregate, more than 75mm across width of the plank and more than 1mm deep. Edge cuts more than 10 mm deep.	Notches, such as saw cuts, can result in a disproportionate loss of strength.	Discard plank or cut off affected area.
Notches or holes.	Any notches or holes other than nail holes.	Holes or notches made in planks to permit penetrations, bolting etc. may result in excessive loss of strength.	Discard plank or cut off affected area.
Discoloured patches.	Not identified as due to paint/stain, cement, oil or other common substances with moderate pH.	Fungal decay or chemical degradation leading to softening of wood and loss of strength.	Discard plank or cut off affected area. Otherwise, proof test to validate continued use.
	Oil, grease, paint or other substance on surface with potential to increase slipperiness.	Slip hazard.	Withdraw planks from service. Gently scrape material and/or wash from surface with detergent. Clean planks may be returned to service.
General discolouration.	Plank surface grey in colour, possibly accompanied by fine checks (splits) in surface veneers. No evidence of defibration or softening of the surface.	Normal bleaching by the sun. Surface checking is also normal and not critical early effect of weathering.	No action required.
	Dark grey or bleached, accompanied by softening of the wood surface and defibration - ridges of harder wood, parallel to the grain may be left and soft wood readily removed if scratched or rubbed.	Chemical degradation or advanced weathering leading to loss of strength.	Discard planks exhibiting defibration or softening of the wood fibre on the surface. For planks subjected to strong acids and alkalis, proof testing at intervals related to time, usage cycles and exposure is recommended.

CONDITION	APPEARANCE	POSSIBLE CAUSE/EFFECT	NECESSARY ACTION
Splits.	Discontinuous surface splits, usually not extending deeper than the 3rd layer of veneer.	The result of weathering effects of constant wetting and drying. Called 'checks'.	No action required. Checking of this type is normal and has little effect on structural capacity.
	End splits, extending through the full thickness, but not more than 300mm in length.	Result from moisture differentials near the end of planks and the moisture-induced shrink and swell characteristics.	No action required. Where splits exceed 300mm, cut off and paint seal end of plank to limit the ingress of moisture.
Splits in edges.	Splits in edges between plies. Individually more than 150mm long and allowing insertion of a knife blade to a depth of more than 10mm.	Possibly a manufacturing defect. Bond defects are usually apparent after first exposure to moisture. (Not to be confused with numerous small checks associated with weathering) - unlikely to be critical unless extensive.	Remove plank from service and seek advice from manufacturer.
Lifting veneer.	Veneer lifting from surface, bubbles etc. or veneer separation at face scarf joint.	Defective manufacture, usually evident very early in the life of the plank. Poorly made scarf joints may be critical.	Remove plank from service and seek advice from manufacturer.
Any observation suggesting planks have been used as 'duck boards', sole plates, formwork, or for any other purpose other than as scaffold planks.		Damaged plank - damage may not be immediately obvious but plank may break suddenly under normal load in future.	Discard plank. Tag, paint or otherwise clearly and permanently distinguish as not suitable for scaffolding purposes.
Any plank seen to be subjected to unusually severe loading - impact loading from falling objects excessively loaded (more than 210 kg) with stacked materials, subjected to vehicular traffic etc.		Weakened plank - weakening may not be immediately obvious but plank may break under normal load in future.	Remove immediately. Discard and tag, paint or otherwise clearly and permanently distinguish as not suitable for scaffolding purposes.
Corner damage at ends.	Part of the width of the plank near the end or ends (more than 15% of the width) has been broken away reducing the width of bearing at the end support.	Usually the result of dropping. The loss of the width may result in the plank rolling at the affected support.	Cut off affected end and paint seal to reduce moisture ingress.
Loss of section.	Corner or other part of cross-section area exceeding 400mm ² broken away.	The result of damage. Will reduce strength depending upon the loss of cross-section.	Cut off affected portion or reject for continued use as a scaffold plank.

NOTE: Proof test load should be twice the Working Load Limit (WLL) and plank should be tested with critical defect as near as possible to the load point but on the opposite face to the load application. For planks longer than their maximum span and where there is no clearly defined suspect weak point, testing with planks in a number of positions and orientations is suggested. Contact Finnforest on +44 (0)151 552 8700.

MASTER PLANK® IDENTIFICATION



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