

Kerto® LVL

Birch Ply

Rego

ACOUSTIC FIRE DOOR BLANKS



Metsä

Kerto® LVL



ACOUSTIC FIRE DOOR BLANKS

HIGH QUALITY KERTO-Q ACOUSTIC FIRE DOOR
BLANKS FOR THE DOOR INDUSTRY (-33 dB)

Kerto LVL acoustic fire door blanks offer all the benefits of timber with an outstanding resistance to bow, warp and twist. Fire doors blanks are available with ½ hour (FD30) or 1 hour (FD60) fire resistance. They are available in an industry standard 2135 mm x 915 mm size and supplied calibration sanded and unlippped, ready for further processing.

Kerto LVL acoustic fire door blanks are made of cross laminated Kerto LVL Q-panels. Q-panels are manufactured from 3 mm thick strength graded softwood veneers. Approximately 20 % of the veneers are oriented in the crosswise direction. The veneers are bonded with exterior grade weather- and boil-resistant phenol formaldehyde adhesive.

With cross-bonded veneers, there is an essential reduction in moisture-dependent variations along the width of the panel, and the crosswise veneers enhance also the lateral strength and stiffness of the panel. The result is an engineered wood product that delivers a strong and dimensionally stable door blank that does not warp or twist, ideal for the door industry.

Kerto LVL acoustic fire door blanks are easy to machine and do not cause extra wear and tear on the tooling.



KEY BENEFITS

- Stable and predictable
- Excellent thermal properties
- Dimensionally stable: does not warp or twist
- Unrivalled strength-to-weight ratio
- Lighter in weight than other fire door blank materials
- Reduction of materials when compared to stiles and rails
- Easy to machine, router, edge band, veneer and laminate
- PEFC certified - full chain of custody

FIRE PERFORMANCE

Kerto LVL acoustic fire door blanks have been fire tested* with and without glazed openings, according to European standards (EN 1634-1). Fire resistance of the product is:

- 45 mm FD30 Q-panel 30 min (BM Trada BMT/CNA/F14081)
- 54 mm FD60 Q-panel 60 min (BM Trada BMT/CNA/F14082)

*FD30 Kerto LVL door blanks are tested using Metsä Wood fire door lining/casing sets (Certifire approval number CAF184).

ACOUSTIC PERFORMANCE

Kerto LVL acoustic fire door blanks have been fire tested according to EN ISO 10140-2. Operational airborne sound insulation R_w of the product is:

- 45 mm FD30 Q-panel -33 dB (BM Trada BMT/MTP/F14149/03)
- 54 mm FD60 Q-panel -33 dB (BM Trada BMT/MTP/F14149/08)
- Values are applicable also as sound transmission classes (STC) according to ASTM E413

THERMAL PERFORMANCE

Thermal conductivity of Kerto LVL Q-panel is approximately 0,11 W/(m K).

SIZES AND AVAILABILITY

PRODUCT	SIZING (mm)	THICKNESS	WEIGHT (kg)	PACK SIZE
FD30 Q-panel	2135 x 915	45 mm (16 ply)	44.8	17
FD60 Q-panel	2135 x 915	54 mm (19 ply)	53.8	14

Special dimensions are available on request.

TOLERANCES

DIMENSION TOLERANCES

Length	± 3 mm
Width	± 3 mm
Thickness	- 0 mm / + 1 mm

In moisture content of 10 ± 2 %

MATERIAL PROPERTIES

MATERIAL PROPERTIES

Dimensional variation coefficients per change of moisture content in %	
Thickness	0.0024
Width/height	0.0003
Length	0.0001
Average density (kg/m ³)	510
Design charring rate β_n (mm/min)	0.70

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Kerto LVL Q-panels falls far below the Class E1 requirement of ≤ 0,100 ppm, and also fulfils the most stringent requirements in the world (≤ 0,030 ppm). The formaldehyde emission of Kerto LVL Q-panels is approximately 0,018 ppm.

ENVIRONMENT

Renewable and recyclable, wood is a highly eco-effective building material throughout its life cycle. The majority of the wood comes from PEFC certified northern forests, ensuring that the origin of the raw material is traceable with full Chain of Custody (Bureau Veritas Certification No. 200774).

i Always refer to our technical guidelines for the sealing of Metsä Wood fire door blanks (see page 8).

Birch Ply



ACOUSTIC FIRE DOOR BLANKS

SUPERIOR QUALITY ACOUSTIC FIRE DOOR BLANKS
FOR THE SPECIALIST DOOR INDUSTRY (-37 dB)

Metsä Wood Birch fire door blanks are the ideal choice for the architectural doorset industry, hotels and public buildings where high end acoustic performance is required. Fire doors blanks are available with ½ hour (FD30) or 1 hour (FD60) fire resistance. They are available in an industry standard 2135 mm x 915 mm size and supplied calibration sanded and unlipped, ready for further processing.

Metsä Wood Birch acoustic fire door blanks are made of Metsä Wood Birch plywood panels. Birch plywood is manufactured from cross-bonded 1,4 mm thick birch veneers and bonded with exterior grade weather- and boil-resistant phenol formaldehyde adhesive. The panels are sanded on both sides and their surface is smooth, hard and durable. Birch plywood is characterised by excellent strength and rigidity -related properties.

Metsä Wood Birch plywood is easy to reprocess using different veneers or overlays. Birch acoustic fire door blanks are calibration sanded, however sanding through to the glue lines is possible. This is a natural property of the surface finish and may require some remedial putty filling before overlaying or painting.

Metsä Wood Birch acoustic fire door blanks are easy to machine and do not cause extra wear and tear on the tooling.



KEY BENEFITS

- Highly stable and durable
- Unrivalled strength-to-weight ratio
- Reduction of materials when compared to stiles and rails
- Easy to machine, router, edge band, veneer and overlay
- Can be painted or stained
- PEFC certified - full chain of custody

FIRE PERFORMANCE

Metsä Wood Birch acoustic fire door blanks have been fire tested* with and without glazed openings, according to European standards (EN 1634-1). Fire resistance of the product is:

- 45 mm FD30 Birch 30 min (BM Trada BMT/CNA/F14079)
- 54 mm FD60 Birch 60 min (BM Trada BMT/CNA/F14080)

*FD30 Birch acoustic fire door blanks are tested using Metsä Wood fire door lining/casing sets (Certifire approval no. CAF184).

ACOUSTIC PERFORMANCE

Metsä Wood Birch acoustic fire door blanks have been fire tested according to EN ISO 10140-2. Operational airborne sound insulation R_w of the product is:

- 45 mm FD30 Birch -37 dB (BM Trada BMT/MTP/F14149/01)
- 54 mm FD60 Birch -37 dB (BM Trada BMT/MTP/F14149/06)
- Values are applicable also as sound transmission classes (STC) according to ASTM E413

THERMAL PERFORMANCE

Thermal conductivity of Metsä Wood Birch is approximately 0,17 W/(m K).

SIZES AND AVAILABILITY

PRODUCT	SIZING (mm)	THICKNESS	WEIGHT (kg)	PACK SIZE
FD30 Birch	2135 x 915	45 mm (33 ply)	59.8	20
FD60 Birch	2135 x 915	54 mm (40 ply)	71.7	20

Special dimensions are available on request.

TOLERANCES

DIMENSION TOLERANCES

Length	± 3 mm
Width	± 2 mm
Thickness	- 0 mm / + 1 mm

In moisture content of 10 ± 2 %

MATERIAL PROPERTIES

MATERIAL PROPERTIES

Dimensional variation coefficients per change of moisture content in %	
Thickness	0.0041
Width/length	0.0002
Average density (kg/m ³)	680
Design charring rate β_0 (mm/min)	0.85

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Birch falls far below the Class E1 requirement of ≤ 0,100 ppm, and also fulfils the most stringent requirements in the world (≤ 0,030 ppm). The formaldehyde emission of Metsä Wood Birch is approximately 0,013 ppm.

ENVIRONMENT

Renewable and recyclable, wood is a highly eco-effective building material throughout its life cycle. The majority of the wood comes from PEFC certified northern forests, ensuring that the origin of the raw material is traceable with full Chain of Custody (Bureau Veritas Certification No. 200774).

i Always refer to our technical guidelines for the sealing of Metsä Wood fire door blanks (see page 8).

Rego



ACOUSTIC FIRE DOOR BLANKS

PREMIUM QUALITY ACOUSTIC FIRE DOOR BLANK FOR THE ARCHITECTURALLY SPECIFIED JOINERY AND DOORSET INDUSTRY (-41 dB)

Metsä Wood Rego acoustic fire door blanks are perfectly suited for the luxury hotel industry, public buildings, hospitals, schools and high noise emission areas. Fire doors blanks are available with ½ hour (FD30) fire resistance. They are available in an industry standard 2135 mm x 915 mm size and supplied calibration sanded and unlicked, ready for further processing.

Metsä Wood Rego acoustic fire door blanks are composite panels consisting of Metsä Wood birch plywood and Amorim Cork composite sound reduction material. Birch plywood is manufactured from cross-bonded 1,4 mm thick birch veneers and bonded with exterior grade weather- and boil-resistant phenol formaldehyde adhesive.

Metsä Wood Rego has been developed to meet the increasing demands of building standards for acoustic performance within a fire doorset environment. Following extensive testing and development, Rego acoustic fire door blanks have achieved a market leading -41 dB in just a 47 mm thick door blank.

Metsä Wood Rego acoustic fire door blanks are calibration sanded, however sanding through to the glue lines is possible. This is a natural property of the surface finish and may require some remedial putty filling before overlaying or painting.

Metsä Wood Rego acoustic fire door blanks are easy to machine and do not cause extra wear and tear on the tooling.



KEY BENEFITS

- -41 dB operational airborne sound insulation (without glass opening)
- Weight only 67.5 kg per blank (average density 735 kg/m³)
- Highly durable, stable and predictable
- Unrivalled strength-to-weight ratio
- Reduction of materials when compared to stiles and rails
- Easy to machine, router, edge band, veneer or overlay
- Can be painted or stained
- PEFC certified – full chain of custody

FIRE PERFORMANCE

Metsä Wood Rego acoustic fire door blanks have been fire tested* with and without glazed openings, according to European standards (EN 1634-1). Fire resistance of the product is:

- 47 mm FD30 Rego 30 min (BM Trada BMT/CNA/F14083)

*FD30 Rego acoustic fire door blanks are tested using Metsä Wood fire door lining/casing sets (Certifire approval no. CAF184).

ACOUSTIC PERFORMANCE

Metsä Wood Rego acoustic fire door blanks have been fire tested according to EN ISO 10140-2. Operational airborne sound insulation R_w of the product is:

- 47 mm FD30 Rego -41 dB (BM Trada BMT/MTP/F14149/02)
- Values are applicable also as sound transmission classes (STC) according to ASTM E413

SIZES AND AVAILABILITY

PRODUCT	SIZING (mm)	THICKNESS	WEIGHT (kg)	PACK SIZE
FD30 Rego	2135 x 915	47 mm	67.5	10

Special dimensions are available on request.

TOLERANCES

DIMENSION TOLERANCES

Length	± 3 mm
Width	± 2 mm
Thickness	- 0 mm / + 2 mm

In moisture content of 10 ± 2 %

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Birch falls far below the Class E1 requirement of ≤ 0,100 ppm and fulfils also the most stringent requirements in the world (≤ 0,030 ppm). The formaldehyde emission of Metsä Wood Birch is approximately 0,013 ppm. Cork composite sound reduction material does not contain any formaldehyde.

ENVIRONMENT

Renewable and recyclable, wood is a highly eco-effective building material throughout its life cycle. The majority of the wood comes from PEFC certified northern forests, ensuring that the origin of the raw material is traceable with full Chain of Custody (Bureau Veritas Certification No. 200774).

- Always refer to our technical guidelines for the sealing of Metsä Wood fire door blanks (see page 8).



GUIDELINES FOR DOOR MANUFACTURERS ON THE PROTECTION REQUIREMENTS OF METSÄ WOOD DOOR BLANKS

To be read in conjunction with the latest Metsä Wood door blank datasheets (pages 2-7 above).

- Metsä Wood door blanks are moisture sensitive, so care should be taken to store them in a temperature-controlled environment. The panels should not be left exposed to long periods of storage time in damp environments.
- Timber products made from non-durable wood species must be protected when exposed to high humidity conditions or when in contact with water.
- The best method to achieve this is to completely enclose or seal the product within a moisture impervious membrane. This is particularly important if exposed edges will be visible. Always reseal any edges which are trimmed or altered on site.
- An oil or water based sealer or primer, such as PVA adhesive, should be used in conjunction with topcoats. These should be applied in accordance with paint manufacturers' instructions and guidelines.
- Particular attention should be paid to cut, exposed areas such as letterboxes, handles, locks, hinges and glazed openings. These should be resealed to prevent moisture ingress. Always be aware of the bottom edge of the door, where the timber could potentially sit in water contained in the threshold of the door frame.
- Paint manufacturers should be advised that not only the face of the timber will be treated, but the end grain, too. Veneers are bonded together with exterior grade weather- and boil-resistant phenol formaldehyde adhesive.
- The door should either be pre-hung within the frame or go to the door frame pre-cut if possible, so that further trimming is not required. If this is not possible, a label should be attached urging the final fixer to reseal any exposed areas, including where door furniture is fixed.
- If cutting is required on site, where possible, trim the top edge and the long edge (which will hold the hinges) rather than the two more exposed edges. Any exposed, cut edges would need to be re-sealed and painted.

Metsä Wood is one of the leading European producers of engineered wood products. Metsä Wood is committed to serving construction, industrial and distribution customer with competitive and environmentally friendly wood products. Metsä Wood's products include Kerto® LVL, plywood and other wood products.

Metsä Wood's sales in 2019 were EUR 0.4 billion, and currently employing approximately 1,500 people. Metsä Wood is part of Metsä Group.

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