Kerto® LVL

UK DECLARATION OF CONFORMITY

NO. MW/LVL/313-001/UKCA/UKDOC

UK CA

1. PRODUCT-TYPE:
Kerto LVL Qp-beam
Structural Laminated Veneer Lumber, with crosswise veneers (LVL-C)

THICKNESS	NUMBER OF VENEERS	LONG GRAINED	CROSS GRAINED	LAY-UP
39 mm	13	11	2	||—|||||||—||
42 mm	14	12	2	||—||||||||—||
45 mm	15	13	2	||—|||||||||—||
48 mm	16	14	2	||—||||||||||—||
51 mm	17	15	2	||—|||||||||||—||
54 mm	18	16	2	||—||||||||||||—||
57 mm	19	17	2	||—|||||||||||||—||
60 mm	20	18	2	||—||||||||||||||—||
63 mm	21	19	2	||—|||||||||||||||—||
66 mm	22	20	2	||—||||||||||||||||—||
69 mm	23	21	2	||—|||||||||||||||||—||
72 mm	24	22	2	||—||||||||||||||||||—||
75 mm	25	23	2	||—|||||||||||||||||||—||

2. INTENDED USES:
Buildings and bridges

Metsä

3. MANUFACTURER:
Metsäliitto Cooperative
Metsä Wood
P.O.Box 24
FI-08101 Lohja, Finland
Tel. +358 10 4605
metsagroup.com/metsawood/

5. SYSTEM OF ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE:
AVCP System 1

6a. DESIGNATED STANDARD:
EN 14374:2004

Approved body:
CATG Ltd, No. 1245

Certificate of constancy of performance:
1245-CPR-8002 (Lohja LVL mill)
1245-CPR-8003 (Punkaharju LVL mill)

7. DECLARED PERFORMANCES

ESSENTIAL CHARACTERISTICS	SYMBOL	PERFORMANCE	
		KERTO LVL Qp-beam THICKNESS 39 - 51 mm	KERTO LVL Qp-beam THICKNESS 54 - 75 mm
Modulus of elasticity and shear modulus		**N/mm² or kg/m³**	**N/mm² or kg/m³**
Modulus of elasticity, mean values			
Parallel to grain, along	$E_{0,mean}$ [2]	11700	12300
Parallel to grain, along, flatwise	$E_{m,0,flat,mean}$	11300	11400
Parallel to grain, across	$E_{m,90,flat,mean}$	NPD	NPD
Perpendicular to grain, edgewise	$E_{c,90,edge,mean}$ [4]	NPD	NPD
Perpendicular to grain, flatwise	$E_{c,90,flat,mean}$	NPD	NPD
Modulus of elasticity, fifth percentile value			
Parallel to grain, along	$E_{0,k}$ [3]	9800	10300
Parallel to grain, along, flatwise	$E_{m,0,flat,k}$	9500	9600
Parallel to grain, across	$E_{m,90,flat,k}$	NPD	NPD
Perpendicular to grain, edgewise	$E_{c,90,edge,k}$ [5]	NPD	NPD
Perpendicular to grain, flatwise	$E_{c,90,flat,k}$	NPD	NPD
Shear modulus, mean values			
Edgewise	$G_{0,edge,mean}$	600	600
Flatwise, parallel to grain	$G_{0,flat,mean}$	120	120
Flatwise, perpendicular to grain	$G_{90,flat,mean}$	NPD	NPD
Shear modulus, fifth percentile value			
Edgewise	$G_{0,edge,k}$	400	400
Flatwise, parallel to grain	$G_{0,flat,k}$	100	100
Flatwise, perpendicular to grain	$G_{90,flat,k}$	NPD	NPD
Strength, fifth percentile values			
Bending strength			
Edgewise (depth 300mm)	$f_{m,0,edge,k}$	36.0	38.0
Size effect parameter	s	0.12	0.12
Flatwise, parallel to grain	$f_{m,0,flat,k}$	36.0	36.0
Flatwise, perpendicular to grain	$f_{m,90,flat,k}$	NPD	NPD
Compression strength			
Parallel to grain	$f_{c,0,k}$	28.0 [1]	30.0 [1]
Perpendicular to grain, edgewise	$f_{c,90,edge,k}$	6.0	6.0
Perpendicular to grain, flatwise	$f_{c,90,flat,k}$	1.8	1.8
Tension strength			
Parallel to grain (length 3000mm)	$f_{t,0,k}$	28.0	30.0
Perpendicular to grain, edgewise	$f_{t,90,edge,k}$	3.0	2.5
Perpendicular to grain, flatwise	$f_{t,90,flat,k}$	NPD	NPD
Shear strength			
Edgewise	$f_{v,0,edge,k}$	4.1	4.1
Flatwise, parallel to grain	$f_{v,0,flat,k}$	1.3	1.3
Flatwise, perpendicular to grain	$f_{v,90,flat,k}$	NPD	NPD
Density			
Density, mean value	ρ_{mean}	510	510
Density, fifth percentile value	ρ_k	480	480

The material values in this DoP are to be used for structural calculations with EN 1995 (Eurocode 5).

[1] In service class 2 the values 28.0 N/mm^2 and 30.0 N/mm^2 is recommended to be divided by 1.2

[2] Covering $E_{m,0,edge,mean}$, $E_{t,0,mean}$, and $E_{c,0,mean}$

[3] Covering $E_{m,0,edge,k}$, $E_{t,0,k}$, and $E_{c,0,k}$

[4] Covering $E_{t,90,edge,mean}$

[5] Covering $E_{t,90,edge,k}$

ESSENTIAL CHARACTERISTICS	PERFORMANCE			
Bonding quality	requirement fulfilled			
Reaction to fire	**End use condition**	**Minimum thickness (mm)**	**Class (excluding floorings)**	**Class (floorings)**
	- any substrate or air gap behind the product	39	D-s2, d0	D_{fl}-s1
	- with or without an air gap between the product and a substrate of class A1 or A2-s1,d0, thickness of at least 6 mm and density of at least 800 kg/m^3 - fixed mechanically to wooden or metallic frames	39	D-s1, d0	-
	- free standing applications	39	D-s1, d0	-
Release of formaldehyde	E1			
Natural durability against biological attack (EN 350-2)	Class 5 (includes sapwood)			

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The performance of the product identified above is in conformity with the set of declared performance/s. This UK declaration of conformity is issued, in accordance with Regulation 305/2011/EU as it has effect in the United Kingdom, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

At Espoo on 10.7.2023

Sakari Kainumaa
Director, Product Management
Metsä Wood

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Juha Kasslin
SVP, Supply Chain Management
Metsä Wood

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Metsä