# **DECLARATION OF PERFORMANCE**

# NO. MW/LVL/312-001/CPR/DOP



1 (3)

#### 1. PRODUCT-TYPE: Kerto-Q Structural Laminated Veneer Lumber

2. TYPE, BATCH OR SERIAL NUMBER OR OTHER IDENTIFICATION: Kerto-Q Structural Laminated Veneer Lumber

## 3. INTENDED USE OR USES:

Buildings and bridges

### 4. NAME AND ADDRESS OF THE MANUFACTURER:

Metsäliitto Cooperative Metsä Wood P.O.Box 24 FI-08101 Lohja, Finland Tel. +358 10 4656 499 www.metsawood.com

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

#### 7. CONSTRUCTION PRODUCT COVERED BY A HARMONISED STANDARD:

VTT Expert Services Ltd, Notified product certification body No. 0809 performed determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product; initial inspection of the manufacturing plants and of factory production control and performs the continuous surveillance, assessment and evaluation of factory production control under system 1 and issued the certificate of constancy of performance:

0809 - CPR - 1002

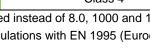


#### 9. DECLARED PERFORMANCE

	SYMBOL	PERFORMANCE		HARMONIZED
ESSENTIAL CHARACTERISTICS		KERTO-Q THICKNESS 21 - 24 mm	KERTO-Q THICKNESS 27 - 75 mm	TECHNICAL SPECIFICATION
Modulus of elasticity and shear modulus		N/mm <sup>2</sup> or kg/m <sup>3</sup>	N/mm <sup>2</sup> or kg/m <sup>3</sup>	
Modulus of elasticity, mean values	_			
Parallel to grain, along	E <sub>0,mean</sub>	10000	10500	
Parallel to grain, across Perpendicular to grain, edgewise	E90,mean E90,edge,mean	1200 <sup>1</sup> 2400	2000 2400	
Perpendicular to grain, flatwise	E90,edge,mean E <sub>90,flat,mean</sub>	NPD	NPD	
Modulus of elasticity, fifth percentile value				
Parallel to grain, along	$E_{0,k}$	8300	8800	
Parallel to grain, across	$E_{90,k}$	1000¹	1700	
Perpendicular to grain, edgewise	E <sub>90,edge,k</sub>	2000	2000	
Perpendicular to grain, flatwise	E <sub>90,flat,k</sub>	NPD	NPD	
<u>Shear modulus, mean values</u> Edgewise	G	600	600	
Flatwise, parallel to grain	$G_{0,edge,mean} \ G_{0,flat,mean}$	600 60	120	
Flatwise, perpendicular to grain	G <sub>0,flat,mean</sub> G <sub>90,flat,mean</sub>	22	22	
	C 90, nat, mean			
Shear modulus, fifth percentile value Edgewise	General	400	400	
Flatwise, parallel to grain	$G_{0,edge,k}$ $G_{0,flat,k}$	400 50	100	
Flatwise, perpendicular to grain	$G_{90,flat,k}$	16	16	
	- 00,1101,11			
Strength, fifth percentile values Bending strength				
Edgewise (depth 300mm)	f <sub>m,0,edge,k</sub>	28.0	32.0	
Size effect parameter	S	0.12	0.12	
Flatwise, parallel to grain	f <sub>m,0,flat,k</sub>	32.0	36.0	EN 14374:2004
Flatwise, perpendicular to grain	<i>f<sub>m,90,flat,k</sub></i>	8.0 <sup>1</sup>	8.0	EN 14374.2004
Compression strength				
Parallel to grain	f <sub>c,0,k</sub>	19.0	26.0	
Perpendicular to grain, edgewise Perpendicular to grain, flatwise (spruce)	f <sub>c,90,edge,k</sub>	9.0 2.2	9.0 2.2	
Perpendicular to grain, flatwise (spruce)	f <sub>c,90,flat,k</sub> f <sub>c,90,flat,k</sub>	3.3	3.3	
	1c,90,flat,k	5.5	0.0	
Tension strength				
Parallel to grain (length 3000mm)	$f_{t,O,k}$	19.0	26.0	
Perpendicular to grain, edgewise	f <sub>t,90,edge,k</sub>	6.0	6.0	
Perpendicular to grain, flatwise	$f_{t,90,flat,k}$	NPD	NPD	
Shear strength				
Edgewise	f <sub>v,0,edge,k</sub>	4.5	4.5	
Flatwise, parallel to grain	f <sub>v,0,flat,k</sub>	1.3	1.3	
Flatwise, perpendicular to grain	$f_{v,90,flat,k}$	0.6	0.6	
Density	<u>^</u>	<b>E</b> 40	540	
Density, mean value Density, fifth percentile value	$ ho_{mean}$ $ ho_k$	510 480	510 480	
Bonding quality	PK	requirement fulfilled		
Reaction to fire		D-s1,d0		
Release of formaldehyde		E1		
Natural durability against biological attack (EN 350-2)		Class 4		
1 For the law up LIII L the values 14.0, 2000 and 2300 can be used instead of 8.0, 1000 and 1200				

<sup>1</sup> For the lay-up I-III-I the values 14.0, 2900 and 3300 can be used instead of 8.0, 1000 and 1200

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





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10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Arto Salo VP, Product Category Kerto Building and Industry business line

Lohja 15.10.2013

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