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<i>Made by</i> Fredrik Stridh	<i>Version</i> 7	
<i>Approved by</i> George Peterson	<i>Replaces</i> 2019-07-01	<i>Date</i> 2019-10-09

## DECLARATION OF PERFORMANCE CPR240

### 1. Unique identification code of the product and type

Structural plywood

- Vänerply K20/70
- Vänerply C/C
- Vänerply C+/C
- Vänerply CP/C

### 2. Product

Structural plywood, according to EN 13986:2004+A1:2015. For more, or more detailed information about the delivered product, beyond the information below, see specification on the package and related commercial documents.

### 3. Intended use of the construction product

For structural use according to Eurocode 5 (EN 1995-1-1), and other purposes where strength and stiffness of the structure is essential.

### 4. Manufacturer

Company: Moelven Vänerply AB  
Address: Industrivägen 10, 547 81 OTTERBÄCKEN  
Telephone: +46 10-122 66 00  
E-mail: info.vanerply@moelven.se  
Web site: www.moelven.com

### 5. System of assessment and verification of constancy of performance of the construction product

System 2+.

### 6. Certification and declared performance according to the harmonized standard

EN 13986:2004+A1:2015

The notified body RISE (identification number 0402) has performed an initial inspection of the manufacturing plant and of the factory production control and performs continuous surveillance, assessment and evaluation of the factory production control. RISE has issued EC Certificate of Factory Production Control No. 0402 – CPR – 169002

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## 7. Declared performance

Essential characteristics	Declared performance			
Bending strength	See attached table (Annex 1 and 2)			
Bending stiffness (Moduls of Elasticity)	See attached table (Annex 1 and 2)			
Strength, stiffness and impact resistance for roof decking	See attached table (Annex 3)			
Strength, stiffness and impact resistance for flooring	See attached table (Annex 4)			
Reaction to fire	End use condition	Minimum thickness [mm]	Class (excluding floorings)	Class, floorings
	Without an air gap behind	9	D-s2, d0	Dfi-s1
	With open / closed air gap ≤22mm behind	9	D-s2, d2	-
	Closed air gap behind	15	D-s2, d1	Dfi-s1
	Open air gap behind	18	D-s2, d0	Dfi-s1
Bonding quality	3 according to EN 314-2			
Durability (Moisture resistance)	Bonding quality 3 according to EN 314-2 Service class 2 according to EN 1995-1-1 Use class 2 according to EN 335:2013			
Mean density	485kg/m <sup>3</sup>			
Water vapour permeability	Wet 68μ / dry 194μ			
Sound absorption	0,1 / 0,3			
Release of formaldehyde	E1			
Content of pentachlorophenol (PCP)	NPD (no performance detected)			
Thermal conductivity	0,13 W/mK			
Sound insulation	NPD			



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#### 8. Relevant essential characteristics

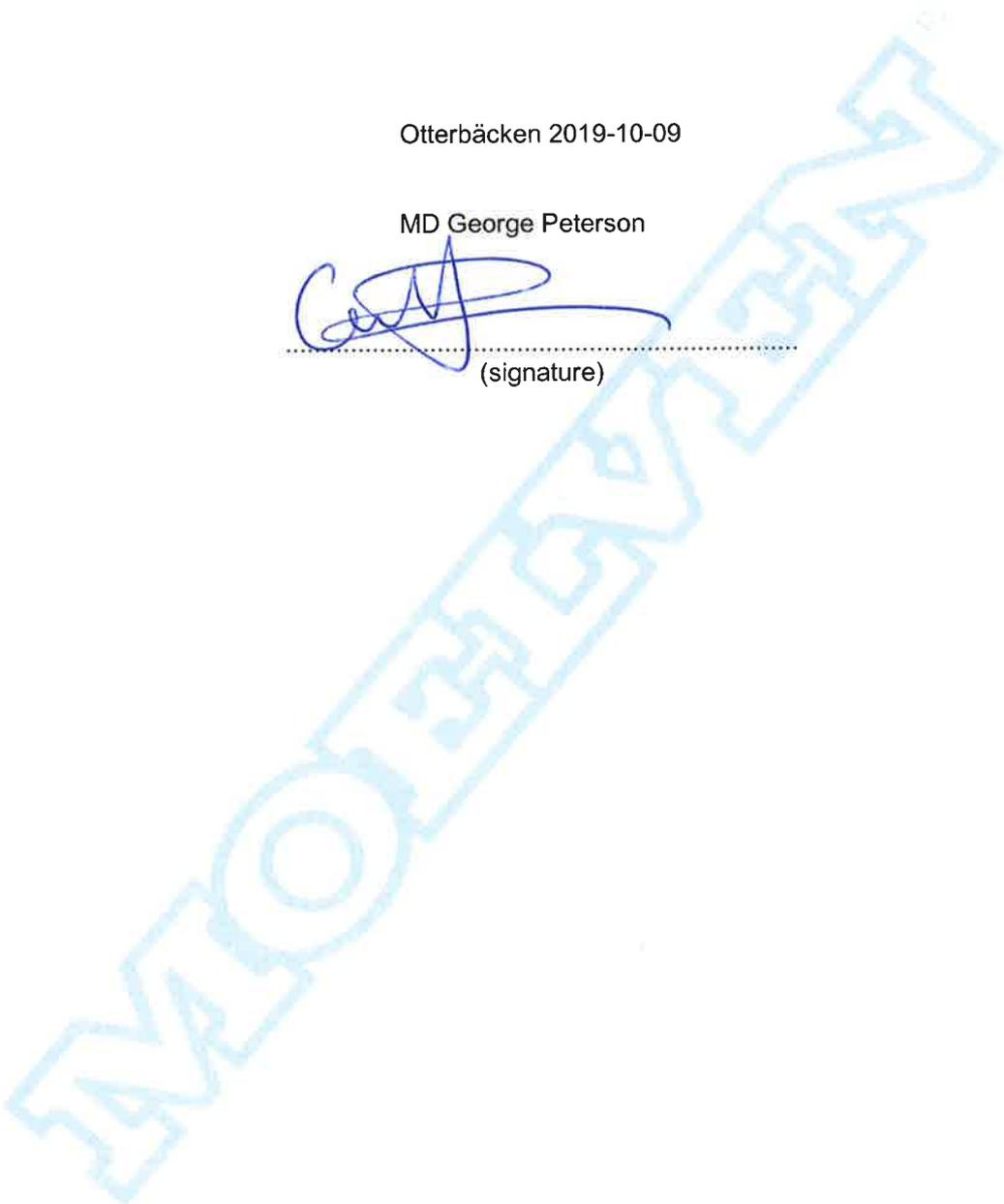
The characteristics declared by the product described under point 1 and 2, are the characteristics declared under point 7. This Declaration of Performance is prepared under the sole responsibility of the manufacturer, who is stated under point 4.

Otterbäcken 2019-10-09

MD George Peterson



(signature)



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## Annex 1

Plywood according to EN 13986:2004+A1:2015  
 Complying with EN 636:2012+A1:2015  
 For use in service class 1 and 2 according to EN 1995-1-1  
 Manufactured by: Moelven Vänerply AB  
 The characteristic values given below are from tests and calculations.

### Unsanded

#### Characteristic strength [N/mm<sup>2</sup> or MPa] and density [kg/m<sup>3</sup>]

Thickness [mm]	Number of layers	Density	Bending		Tension		Compression		Panel	Planar
			$f_{m,0}$	$f_{m,90}$	$f_{t,0}$	$f_{t,90}$	$f_{c,0}$	$f_{c,90}$	Shear	Shear
9	3	420	22	NPD	12	4	17	4	3	1
12	5	420	25	7	11	7	15	10	3	1
15	5	420	25	7	11	7	15	10	3	1
18	5	420	26	7	11	7	15	10	3	1
21	7	420	23	8	10	8	14	11	3	1
24	7	420	24	7	11	7	16	9	3	1
27	7	420	20	7	10	8	14	9	3	1

#### Mean modulus of elasticity [N/mm<sup>2</sup> or MPa]

Thickness [mm]	Number of layers	Bending		Tension and Compression		Panel Shear	Planar Shear EN 12369-2
		$E_{m,0}$	$E_{m,90}$	$E_{t,0}$	$E_{t,90}$	$G_v$	$G_r$
9	3	9000	NPD	6300	NPD	600	NPD
12	5	9000	2100	6375	4250	600	16
15	5	8913	2000	6324	4216	600	16
18	5	9501	2100	6460	4307	600	16
21	7	8006	2900	6023	4517	600	16
24	7	8171	2400	6460	3953	600	16
27	7	7000	2700	5856	4356	600	16

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## Annex 2

Plywood according to EN 13986:2004+A1:2015  
 Complying with EN 636:2012+A1:2015  
 For use in service class 1 and 2 according to EN 1995-1-1  
 Manufactured by: Moelven Vänerply AB  
 The characteristic values given below are from tests and calculations.

### Sanded

Characteristic strength [N/mm<sup>2</sup> or MPa] and density [kg/m<sup>3</sup>]

Thickness [mm]	Number of layers	Density	Bending		Tension		Compression		Panel Shear	Planar Shear
			$f_{m,0}$	$f_{m,90}$	$f_{t,0}$	$f_{t,90}$	$f_{c,0}$	$f_{c,90}$	$f_v$	$f_r$
9	3	420	20	NPD	11	6	15	8	3	1
12	5	420	21	6	10	7	14	10	3	1
15	5	420	22	6	10	7	14	10	3	1
18	5	420	22	6	10	7	14	10	3	1
21	7	420	20	7	9	8	13	11	3	1

Mean modulus of elasticity (N/mm<sup>2</sup> or MPA)

Thickness [mm]	Number of layers	Bending		Tension		Compression	Panel Shear	Planar Shear EN 12369-2
		$E_{m,0}$	$E_{m,90}$	$E_{t,0}$	$E_{t,90}$		$G_v$	$G_r$
9	3	7000	NPD	5600	NPD		600	NPD
12	5	7056	1800	5695	4250		600	16
15	5	7259	1700	5780	4216		600	16
18	5	7369	1800	5780	4307		600	16
21	7	7000	2600	5537	4517		600	16

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### Annex 3

Plywood according to EN 13986:2004+A1:2015  
 Complying with EN 636:2012+A1:2015  
 For use in service class 1 and 2 according to EN 1995-1-1  
 Manufactured by: Moelven Vänerply AB  
 The characteristic values given below are from tests and calculations.

#### Tongue and groove on long edges (TG2) unsanded

Strength, stiffness and impact resistance for roof decking according to EN12871:2013  
 Long edges tongue and grooved, short edges over support.

Thickness [mm]	Number of layers	Span [mm]	Characteristic strength, Ultimate [N] $F_{max,k}$	Characteristic strength, Serviceability [N] $F_{ser,k}$	Mean Stiffness [N/mm] $R_{mean}$	Impact resistance  Class
12	5	600	2560	2300	83	II
15	5	800	3000	2200	125	II
18	5	1200	3700	2700	100	II
21	7	1200	4700	4100	128	II

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#### Annex 4

Plywood according to EN 13986:2004+A1:2015  
 Complying with EN 636:2012+A1:2015  
 For use in service class 1 and 2 according to EN 1995-1-1  
 Manufactured by: Moelven Vänerply AB  
 The characteristic values given below are from tests and calculations.

#### Tongue and groove on long edges (TG2) sanded

Strength, stiffness and impact resistance for flooring according to EN12871:2013 Long edges tongue and grooved, short edges over support. Glued to support and tongue and groove.						
Thickness [mm]	Number of layers	Span [mm]	Characteristic strength, Ultimate [N] $F_{max,k}$	Characteristic strength, Serviceability [N] $F_{ser,k}$	Mean Stiffness [N/mm] $R_{mean}$	Impact resistance  Class
18	5	400	5500	4800	712	II
21	7	600	6000	5600	512	II