



Declaration of performance no. DOP_MMKR_401

Unique identification code of the product type:	SWP/3 SD K1 multiplan
indicator for identification of the product:	SWP/3 SD (thickness), 3-ply
name and address of manufacturer	Mayr-Melnhof Holz Reuthe GmbH Vorderreuthe 57, 6870 Reuthe, Österreich
Intended use of the construction product	Solid wood panel for load bearing structures
System for assessment and examination	System 2+
Harmonised standard:	EN 13986:2015-06

In the report no. 51141-904.281.000 dated 3rd of March 2004 the notified body MPA Stuttgart – no. 0672 derived the bending strength and the modulus of elasticity and gives characteristic values of mechanical properties and a rating about durability. The evaluation of the producer's laboratory according EN 326-2 has been documented in the report no. 51220-9000.5527.000/1 with the initial certification.

A continue monitoring, evaluation and endorsement of the factory production control within the scope of the certifying and supervision contract is carried out and documented with the certification of conformity

no. 0672 – CPR – 0599

The performance stated as ``declared values`` acc. EN 13986:2015-06`` are shown on the table enclosed. Rev. 08 2018-11-15

Signed on behalf of the manufacturer:

Mathias Simma
General Manager

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Reuthe, 26.08.2019

enclosure

product	determination of performance requirements																									
service class	3	nach EN 1995-1-1																								
bending strength	see table 1																									
bending stiffness (MOE)	see table 1																									
durability bonding strength	class	SWP/3 nach EN13354																								
racking resistance	120/240 Nm																									
fire resistance	class	D																								
	smoke	s2																								
	drop	d0																								
water vapour permeability	μ wet	65																								
	μ dry	188																								
release of content of formaldehyde	class 1	E1																								
sound insulation	thickness																									
	R (db)	<table border="1"> <tr> <th>20mm</th><th>26mm</th><th>30mm</th><th>35mm</th><th>40mm</th><th>45mm</th><th>50mm</th><th>55mm</th><th>60mm</th><th>65mm</th><th>70mm</th><th>75mm</th> </tr> <tr> <td>26,4</td><td>27,9</td><td>28,7</td><td>29,6</td><td>30,3</td><td>31,0</td><td>31,6</td><td>32,1</td><td>32,6</td><td>33,1</td><td>33,5</td><td>33,9</td> </tr> </table> (frequency range 1 kHz bis 3 kHz)	20mm	26mm	30mm	35mm	40mm	45mm	50mm	55mm	60mm	65mm	70mm	75mm	26,4	27,9	28,7	29,6	30,3	31,0	31,6	32,1	32,6	33,1	33,5	33,9
20mm	26mm	30mm	35mm	40mm	45mm	50mm	55mm	60mm	65mm	70mm	75mm															
26,4	27,9	28,7	29,6	30,3	31,0	31,6	32,1	32,6	33,1	33,5	33,9															
sound absorption		0,1 (frequency range 250 Hz bis 500 Hz) 0,3 (frequency range 1000 Hz bis 2000 Hz)																								
thermal conductivity	λ	0,12 W/(m · k)																								
strength and stiffness	see Tab 2																									
impact resistance for structural use																										
correction by creep factor	k_{mod}	acc. EN 1995-1- (für Vollholz, Brettschichtholz und Sperrholz)																								
correction by load factor	k_{def}	acc. EN 1995-1- (für Vollholz, Brettschichtholz und Sperrholz)																								

Tabelle 1)

bending strength bending stiffness (MOE)		thickness of 3 ply wood					thickness of 3 ply wood							
		top layer 6,7mm					top layer 13mm							
		20mm	26mm	30mm	35mm	40mm	40mm	45mm	50mm	55mm	60mm	65mm	70mm	75mm
bending strength rectangular to the panel	$f_{m,0}$	44,0	38,0	34,0	29,0	24,0	30,0	29,0	28,0	27,0	26,0	25,0	24,0	23,0
	$f_{m,90}$	6,0	10,2	13,0	16,5	20,0	6,5	7,6	8,6	9,7	10,8	11,9	12,9	14,0
bending stiffness rectangular to the panel	$E_{m,0}$	9000	8400	8000	7500	7000	8000	7750	7550	7300	7100	6850	6650	6400
	$E_{m,90}$	700	1350	1800	2350	2900	700	1000	1250	1550	1850	2150	2400	2700

5% - Quantile of bending strength and bending stiffness (N/mm²) acc. EN 326-1

Tabelle 2)

strength and stiffness (MOE) acc. EN 1058		thickness of 3 ply wood					thickness of 3 ply wood							
		top layer 6,7mm					top layer 13mm							
		20mm	26mm	30mm	35mm	40mm	40mm	45mm	50mm	55mm	60mm	65mm	70mm	75mm
strength N/mm²		plane stress rectangular to plane												
bending	$f_{m,0}$	42,0	36,0	32,0	27,0	22,0	28,0	26,4	24,9	23,3	21,7	20,1	18,6	17,0
	$f_{m,90}$	6,0	10,0	12,5	15,5	19,0	6,5	7,4	8,4	9,3	10,2	11,1	12,1	13,0
shear	$f_{r,0}$	1,4	1,4	1,3	1,3	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
	$f_{r,90}$	1,4	1,4	1,4	1,4	1,4	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
strength N/mm²		slab stress in plane												
bending	$f_{m,0}$	18,0	16,2	15,0	13,5	12,0	16,0	15,0	14,0	13,0	12,0	11,0	10,0	9,0
	$f_{m,90}$	10,5	12,2	13,3	14,6	16,0	8,0	8,7	9,4	10,1	10,9	11,6	12,3	13,0
tension	$f_{t,0}$	19,0	15,6	13,5	10,5	7,5	13,5	12,6	11,8	10,9	10,1	9,2	8,4	7,5
	$f_{t,30}$	7,5	6,5	5,5	5,0	4,0	5,5	5,2	4,9	4,6	4,4	4,1	3,8	3,5
	$f_{t,45}$	5,5	4,5	3,5	3,0	2,0	4,0	3,8	3,6	3,4	3,1	2,9	2,7	2,5
	$f_{t,60}$	6,5	5,5	4,5	4,0	3,0	4,0	4,2	4,4	4,6	4,9	5,1	5,3	5,5
	$f_{t,90}$	7,5	9,0	10,0	11,0	12,0	9,0	9,1	9,3	9,4	9,6	9,7	9,9	10,0
compression	$f_{c,0}$	22,0	19,0	17,0	14,0	11,5	21,0	19,7	18,4	17,1	15,9	14,6	13,3	12,0
	$f_{c,90}$	13,0	15,0	16,5	18,0	20,0	11,0	12,6	14,1	15,7	17,3	18,9	20,4	22,0
Schub	$f_{v,0}$	4,5	4,2	4,0	3,8	3,5	4,5	4,2	3,9	3,6	3,4	3,1	2,8	2,5
	$f_{v,90}$	3,5	3,5	3,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
strength N/mm²		plane stress rectangular to plane												
bending ^{1.)}	$E_{mean,0}$	10400	9700	9200	8600	8000	9000	8700	8400	8100	7900	7600	7300	7000
	$E_{mean,90}$	960	1800	2300	2900	3600	800	1200	1500	1900	2200	2600	2900	3300
shear ^{1.)}	G_{mean}	41	41	41	41	41	41	41	41	41	41	41	41	41
strength N/mm²		slab stress in plane												
bending ^{1.)}	$E_{mean,0}$	6800	5840	5200	4400	3600	6000	5600	5300	4900	4600	4200	3900	3500
	$E_{mean,90}$	3200	4160	4800	5600	6400	3500	3900	4400	4800	5200	5600	6100	6500
shear ^{1.)}	G_{mean}	600	600	600	600	600	700	700	700	700	700	700	700	700

1.) characteristic value of stiffness (MOE) is 0.85 x MOE mean: $E_{05} = 5/6 \times E_{mean}$, and $G_{05} = 5/6 \times G_{mean}$