DECLARATION OF PERFORMANCE

Nr DoP-EN14592-R-DSX-A2

1. Unique identification code of the product type: **R-DSX-A2**
2. Intended use: **Wood construction products. Fasteners for structural wood products (wood screws).**
3. Producer: **RAWLPLUG S.A., ul. Kwidzyńska 6, 51-416 Wrocław, Polska**
4. System(s) of assessment and verification of constancy of performance: **System 3**
5. Harmonized standard **EN 14592+A:2011; 2012-08-01**
   Raport number: **LZKO2-0232811 6lR83NZK**
6. Declared performance characteristics:

Characteristic yield moment				
Screw marking	Measurement data is based on a test report no.	Characteristic yield moment $M_{y,k}$ [Nmm]	Expanded measurement uncertainty $U_{My,k}$ [Nmm]	
R-DSX-40-A2	UP-1	5162	229	
R-DSX-45-A2	UP-2	7064	278	
R-DSX-50-A2	UP-3	9345	331	
Notes: calculation model adopted in accordance with PN-EN 1995-1-1:2010				
Extraction resistance (perpendicular to fibers)				
Screw marking	Measurement data is based on a test report no.	Characteristic perpendicular extraction resistance $f_{ax,k}$ [N/mm 2]	Expanded measurement uncertainty $U_{fax,k}$ [N/mm 2]	
R-DSX-40-A2	WP-1	24,12	2,14	
R-DSX-45-A2	WP-2	22,05	2,26	
R-DSX-50-A2	WP-3	20,67	1,64	
Notes: the tests were performed on C27 timber with a density of pk= 370 kg/m3, which was conditioned at 20°C and 65% humidity, wood sample dimensions: 120x41x41 ÷ 150x55x55 mm, number of samples: 10, samples were introduced using a power screwdriver, testing time: 90 to 110 s, the samples were distributedin accordance with PN-EN 1382				
Withdrawal strength (parallel to fibers)				
Screw marking	Measurement data is based on a test report no.	Characteristic parallel withdrawal strength $f_{ax,k}$ [N/mm 2]	Expanded measurement uncertainty $U_{fax,k}$ [N/mm 2]	
R-DSX-40-A2	WR-1	17,12	1,41	
R-DSX-45-A2	WR-2	14,00	0,95	
R-DSX-50-A2	WR-3	11,79	0,87	

Characteristic yield moment				
Notes: the tests were performed on C27 timber with a density of pk = 370 kg/m3, which was conditioned at 20°C and 65% humidity, wood sample dimensions: 60x40x62 ÷ 75x50x85 mm, number of samples: 10, samples were introduced using a power screwdriver, testing time: 90 to 110 s, the samples were distributed in accordance with PN-EN 1382:2000, calculations were based on the diameter d = 4; 4.5; 5 mm and the length of lp = 21; 24; 30 mm				
Characteristic head pull-through strength				
Screw marking	Measurement data is based on a test report no.	Characteristic head pull-through strength $f_{head,k}$ [N/mm 2]	Expanded measurement uncertainty $U_{fhead,k}$ [N/mm 2]	
R-DSX-40-A2	P-1	30,64	2,85	
R-DSX-45-A2	P-2	31,64	3,94	
R-DSX-50-A2	P-3	37,61	4,05	
Notes: the tests were performed on C24 timber with a density of pk = 350 kg/m3, which was conditioned at 20°C and 65% humidity, wood sample dimensions: 112x112x28 ÷ 140x140x35 mm, number of samples: 10, samples were introduced using a power screwdriver, testing time: 90 to 110 s, the samples were distributed in accordance with PN-EN 1383:2000, calculations were based on the diameter d = 4; 4.5; 5 mm and the diameter of head dh = 6; 6.7; 7.6 mm				
Characteristic tensile strength				
Screw marking	Measurement data is based on a test report no.	Characteristic tensile strength $f_{tens,k}$ [kN]	Expanded measurement uncertainty $U_{ftens,k}$ [kN]	
R-DSX-40-A2	R-1	6,64	0,22	
R-DSX-45-A2	R-2	7,55	0,36	
R-DSX-50-A2	R-3	9,29	0,28	
Notes: testing time: 10 ± 5 s				
Characteristic torsional strength				
Screw marking	Measurement data is based on a test report no.	Characteristic torsional strength $f_{tor,k}$ [Nm]	Expanded measurement uncertainty $f_{tor,k}$ [Nm]	
R-DSX-40-A2	M-1	3,43	0,20	
R-DSX-45-A2	M-2	5,20	0,28	
R-DSX-50-A2	M-3	6,68	0,49	
Characteristic screw-in resistance				
Screw marking	Measurement data is based on a test report no.	Characteristic screw-in resistance $R_{tor,k}$ [Nm]	Expanded measurement uncertainty $R_{tor,k}$ [Nm]	Characteristic torqueresistance ratio $f_{tor,k}/R_{tor,k}$
R-DSX-40-A2	O-1	1,39	0,16	2,5
R-DSX-45-A2	O-2	2,33	0,18	2,2
R-DSX-50-A2	O-3	2,59	0,29	2,6
Notes: the tests were performed on C27 timber with a density of pk = 370 kg/m3, which was conditioned at 20°C and 65% humidity, samples were introduced using a power screwdriver				

The performance of the product identified above is in conformity with the set of declared performance characteristics. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011 under the sole responsibility of the manufacturer identified above.

Sławomir Jagła
Wrocław, 2016-09-20

PEŁNOMOCNIK SYSTEMU
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