

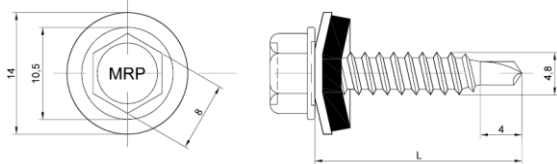
DECLARATION of PERFORMANCE

No 03/WSPD/0371/2021



1. *Unique identification code of the product-type:* **WSPD**
2. *Intended use:* **WSPD self-drilling screws are intended to be used for fastening steel sheeting to steel and timber supporting structures.**
3. *Name, registered trade name or registered trade mark and contact address of the manufacturer:* **Marcopol Sp. z o.o. Producer of Bolts str. Oliwska 100, 80-209 Chwaszczyno Poland**
4. *System or systems of assessment and verification of constancy of performance of the construction product:* **System "2+" of assessment**
5. *European Technical Assessment:* **ETA 18/0371 issued 11.04.2021**
Technical Assessment Body: **Technický a zkušební ústav stavební Praha, s.p.**
Notified Body: **Number: 1020 - Technický a zkušební ústav stavební Praha, s.p.**
6. *Declared performance:*

	Essential characteristics	Performance	Technical specification
3.1 BWR 1: Mechanical resistance and stability			
3.1.1	Characteristic Shear Resistance of the Connection	See Table 1 below	ETA 18/0371
3.1.2	Characteristic Tension Resistance of the Connection	See Table 1 below	ETA 18/0371
3.1.3	Design Resistance in case of combined Tension and Shear Forces (interaction)	No performance assessed	ETA 18/0371
3.1.4	Check of Deformation Capacity in case of constraining forces due to temperature	No performance assessed	ETA 18/0371
3.1.5	Durability		
	Zinc coating min. 8 mikron	Category C1	ETA 18/0371
	Ceramic coating Ruspert Silver	According to individual Producer documentation	ETA 18/0371
	Stainless steel Bi-Metal with ceramic coating Ruspert Silver	Category \geq C2	ETA 18/0371
3.2 BWR 2: Safety in case of fire			
3.2.1	Reaction to fire	The performance of the product is class A1	EN 13501-1

Table 1: Characteristic Tension Resistance $N_{R,k}$ and Shear Resistance $V_{R,k}$ [kN]


Materials: carbon steel – SAE1022
 Fasteners: quenched, tempered and galvanized ($\geq 8 \mu\text{m}$)
 Washer: EPDM sealing ring with metal top
 made of coated carbon steel
 Component I: S280GD, S320GD or S350GD – EN 10346
 Component II: structural timber – EN 14081

Drilling capacity: -

Timber substructures

For timber substructures performance determined with
 $M_{y,Rk} = 4,39 \text{ Nm}$
 $f_{ax,k} = 15,08 \text{ N/mm}^2$ for $l_{ef} \geq 19,2 \text{ mm}$

$t_{N,II}$ [mm]	0,50	0,55	0,63	0,75	0,88	1,00	1,13	1,25	Wood class $\geq C24$			
$M_{t,nom}$	3 Nm								19,2 mm	—		
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69**	—	* bearing resistance of component I ** bearing resistance of component II
	0,55	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69**	—	
	0,63	0,69	0,69	1,08	1,08	1,08	1,08	1,08	1,08	0,69**	—	
	0,75	0,69	0,69	1,08	1,21	1,21	1,21	1,21	1,21	0,69**	—	
	0,88	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	0,69**	—	
	1,00	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	0,69**	—	
	1,13	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	0,69**	—	
	1,25	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	0,69**	—	
	1,50	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	0,69**	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,50	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69	1,39**	—	
	0,55	0,69	0,69	0,69	0,69	0,69	0,69	0,69	0,69	1,39**	—	
	0,63	0,69	0,69	1,08	1,08	1,08	1,08	1,08	1,08	1,39**	—	
	0,75	0,69	0,69	1,08	1,21	1,21	1,21	1,21	1,21	1,39**	—	
	0,88	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	1,39**	—	
	1,00	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	1,39**	—	
	1,13	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	1,39**	—	
	1,25	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	1,39**	—	
	1,50	0,69	0,69	1,08	1,21	1,66	1,66	1,66	1,66	1,39**	—	
	1,75	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	

If component II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%

If component II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

WSPD farmer screws for metal members and sheeting

WSPD 4,8 × L

with hexagon head and sealing washer $\geq \text{Ø}14 \text{ mm}$
 with metal top made of coated carbon steel

Table 1

7. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 6

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

Chwaszczyno, 14.01.2022

Signed by:

R&D Director

Janusz Kabała

Dyrektor Działu Rozwoju
Produktów



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