

PRODUCT DATA SHEET – WFD-4,8

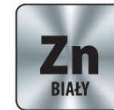
Section 1. PRODUCT DESCRIPTION

**SELF-DRILLING SCREW WITH EPDM WASHER FOR FIXING STEEL SHEETS
IN WOODEN SUBSTRATE – WFD-4,8**

Self-drilling screw WFD-4,8 is made of carbon steel coated with 12 µm zinc coating (WFD/WFDOC) and SQ ceramic coating (WFD-D). Screw has SW hex head, pin threaded for use in timber, self-drilling tip and EPDM washer. Self-drilling screw heads can be painted according to RAL palette providing coating which is resistant to mechanical damages and UV radiation and ensures permanent colour adjusted to roof covering.

Application:

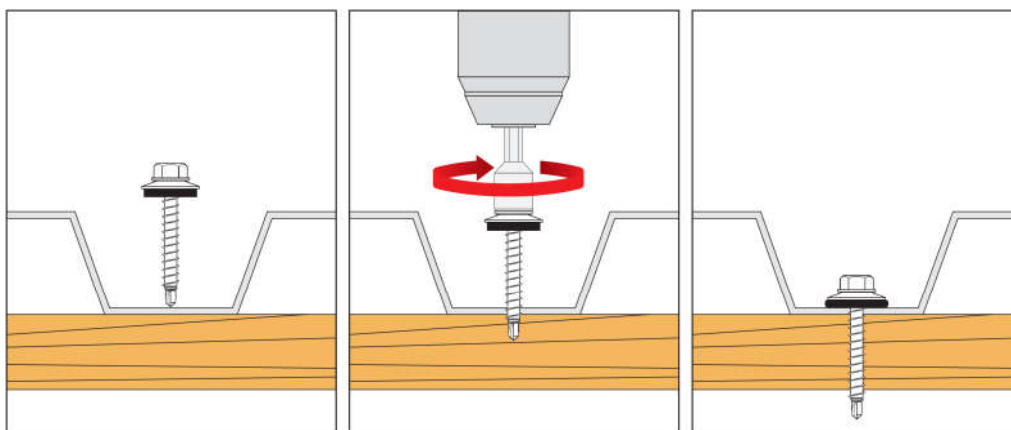
- for fixing steel sheets to wooden substrates
- for fixing steel corrugated sheets to wooden substrates
- for fixing steel roof tiles to wooden ground



Self-drilling screws hold European Technical Assessment: ETA-16/0443

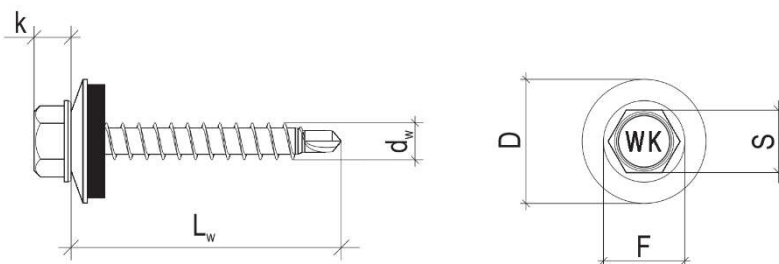
Section 2. METHOD OF INSTALLATION

1. Original self-drilling screws delivered by the manufacturer can be used only.
2. Before installation identify the substrate, its thickness and environmental conditions (expressed as corrosivity categories), and then select screws which meet the above criteria.
3. Correctly select screw type, its length, drilling capacity depending on sum of thickness values of members being fixed and effective depth of anchorage.
4. Drilling capacity for each screw is given in corresponding Product Data Sheet and European Technical Assessment and stands for the sum of thickness values of members being fixed.
5. Make sure to set optimum rotary speed when screwing, as too high rotary speed may cause burning of drilling bits and make it impossible to fasten the screw.
6. At all times screws should be installed perpendicularly to the substrate surface.
7. Make sure to press the washer correctly, as when the washer is pressed either too strongly or too weakly, lack of tightness is likely, which may result in corrosion in the fixing point.



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Section 3. TECHNICAL DATA



TECHNICAL PARAMETERS		
Parameter	Unit	Value
Screw diameter	d_w [mm]	4,8
Drilling capacity	Σt_i [mm]	$\leq 2,5$
Wrench size	S [mm]	SW-8
Head height	k [mm]	4,5
Head diameter	F [mm]	10,0
Tip length	[mm]	5,0
Screw material	-	carbon steel
Corrosion protection	WFD0C/WFD	zinc coating 12 μ m
	WFD-D	ceramic coating SQ
Washer EPDM D [mm]	WFD0C/WFD	steel Z14
	WFD-D	aluminium A14
Coating to RAL palette	WFD	min. 60 μ m
Substrate material	-	timber \geq C24
European Technical Assessment	-	ETA-16/0443

INSTALLATION PARAMETERS		
Parameter	Unit	Value
Screw diameter	d_w [mm]	4,8
Diameter of hole in the substrate	d_o [mm]	-
Min. depth of hole in the substrate	h_o [mm]	-
Anchorage depth	h_{eff} [mm]	20/30*
Min. substrate thickness	h_{min} [mm]	20/30*
Min. spacing	s_{min} [mm]	50
Min. distance from edge	c_{min} [mm]	25

*For timber thickness 20/30 mm

RESISTANCE						
Characteristic pull-out/shear strength [kN]						
Substrate thickness [mm]	Steel sheet thickness [mm]					
	0,50	0,63	0,75	0,88	1,00	1,25
Timber C24 $h_{eff} > 20$ mm	1,24/1,10	1,24/1,50	1,24/1,74	1,24/1,74	1,24/1,74	1,24/1,74
Timber C24 $h_{eff} > 30$ mm	1,73/1,10	1,73/1,50	1,73/1,74	1,73/1,74	1,73/1,74	1,73/1,74

*Partial safety factor of 1.33 recommended

SELECTION TABLE						
WFD0C (zinc coating ZN)	WFD* (zinc coating ZN + RAL)	WFD-D* (ceramic coating SQ)	WFD-D-RAL* (ceramic coating SQ + RAL)	Screw dimensions	Max. usable length	Quantity per box
				$d_w \times L_w$ [mm]	t_{fix} [mm]	[pcs]
WFD0C-48025-Z14	WFD-48025-Z14-RAL	WFD-D-48025-A14	WFD-D-48025-A14-RAL	4,8 x 25	1,25	250
WFD0C-48035-Z14	WFD-48035-Z14-RAL	WFD-D-48035-A14	WFD-D-48035-A14-RAL	4,8 x 35	5	250
WFD0C-48055-Z14	WFD-48055-Z14-RAL	WFD-D-48055-A14	WFD-D-48055-A14-RAL	4,8 x 55	25	200
WFD0C-48070-Z14	WFD-48070-Z14-RAL	WFD-D-48070-A14	WFD-D-48070-A14-RAL	4,8 x 70	45	200
WFD0C-48080-Z14	WFD-48080-Z14-RAL	WFD-D-48080-A14	WFD-D-48080-A14-RAL	4,8 x 80	55	200
WFD0C-48100-Z14	WFD-48100-Z14-RAL	WFD-D-48100-A14	WFD-D-48100-A14-RAL	4,8 x 100	75	100

*Screw on request and to order

Section 4. REMARKS

- All previous versions of this Product Data Sheet shall cease to be valid.
- Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.