Wkręt-met Sp. z o.o. ul. Wincentego Witosa 170/176
Kuźnica Kiedrzyńska PL 42-233 Mykanów
tel. +48 34 377 71 00, fax. +48 34 328 01 73 Hotline: 801 477 477, www.wkret-met.com

PRODUCT DATA SHEET – WDD-4,8

Section 1. PRODUCT DESCRIPTION

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

Self-drilling screw WDD-4,8 is made of carbon steel coated with 12 µm zinc coating (WDD) and SQ ceramic coating (WDD-D). Screw has oval 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.



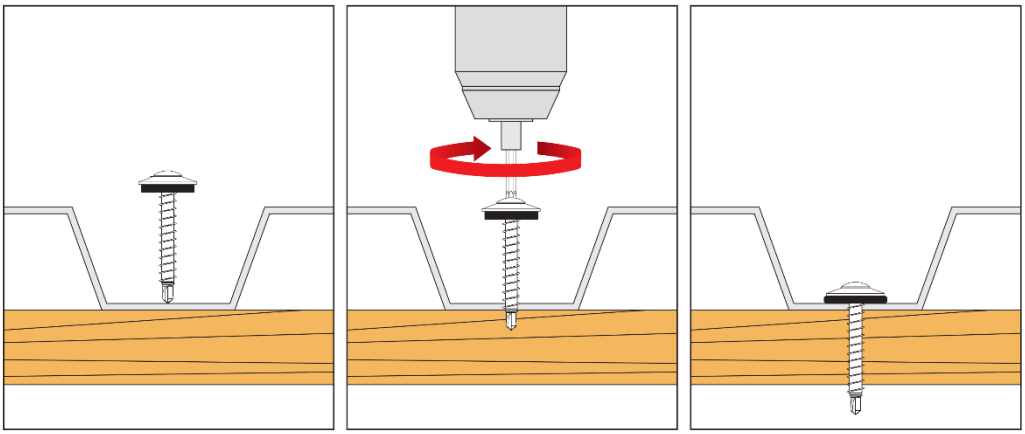
Application:

- **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

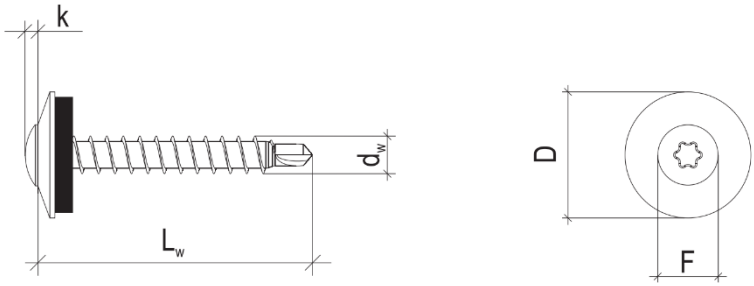
Section 2. METHOD OF INSTALLATION

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.



All rights reserved The sheet may be disclosed only in the form as delivered. No part (contents such as text, graphics, logos, figures, pictures, and any other data) given in this document may be modified or published whatsoever in part, without prior authorisation. Any trademarks, graphic symbols, trade names, logos and other data are protected by copyright and are property of their owner. Created: 2016-08-19 Updated: 2020-03-27

Section 3. TECHNICAL DATA



TECHNICAL PARAMETERS		
Parameter	Unit	Value
Screw diameter	d_w [mm]	4,8
Drilling capacity	Σt_i [mm]	≤ 2,5
Wrench size	S [mm]	TX-20
Head height	k [mm]	2,0
Head diameter	F [mm]	9,0
Tip length	[mm]	5,0
Screw material	-	carbon steel
Corrosion protection	WDD	zinc coating 12 µm
	WDD-D	ceramic coating SQ
Washer EPDM	D [mm]	aluminium A14
Coating to RAL palette	-	min. 60 µm
Substrate material	-	timber ≥ 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_0 [mm]	-
Min. depth of hole in the substrate	h_0 [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						
WDD (zinc coating ZN)	WDD-RAL* (zinc coating ZN + RAL)	WDD-D* (ceramic coating SQ)	WDD-D* (ceramic coating SQ + RAL)	Screw dimensions	Max. usable length	Quantity per box
				d_w x L_w [mm]	t_{fix} [mm]	[pcs]
WDD-48035-A14	WDD-48035-A14-RAL	WDD-D-48035-A14	WDD-D-48035-A14-RAL	4,8 x 35	5	250

*Screw on request and to order

Section 4. REMARKS

1. All previous versions of this Product Data Sheet shall cease to be valid.
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. Wkręt-met 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.

All rights reserved The sheet may be disclosed only in the form as delivered. No part (contents such as text, graphics, logos, figures, pictures, and any other data) given in this document may be modified or published whatsoever in part, without prior authorisation. Any trademarks, graphic symbols, trade names, logos and other data are protected by copyright and are property of their owner. Created: 2016-08-19 Updated: 2020-03-27