

**PRODUCT DATA SHEET – WSS-5,5**

**Section 1. PRODUCT DESCRIPTION**

**SELF-DRILLING SCREW WITH EPDM WASHER FOR FIXING STEEL SHEETS IN STEEL CONSTRUCTION – WSS-5**

Self-drilling screw WSS-5,5 is made of heat-treated carbon steel in galvanized zinc coating 12 µm (WSS) or SQ Ceramic coating (WSS-D). Screw has SW hex head, pin threaded for use in steel, 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.

**Use:**

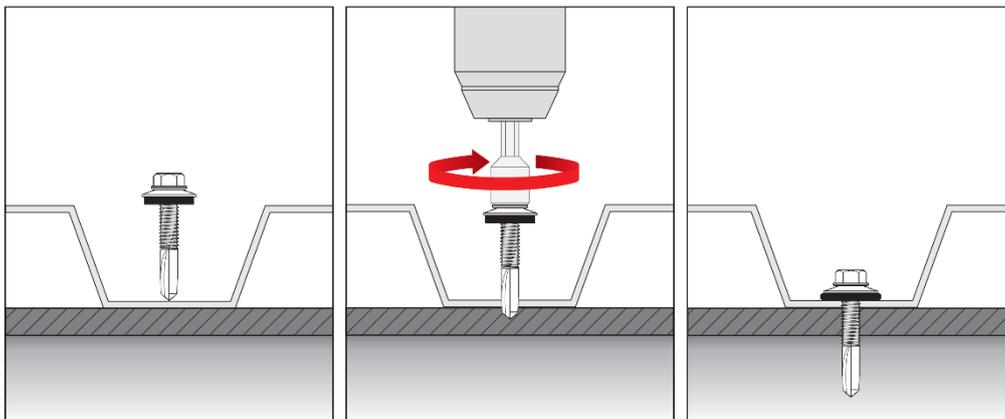
- fixing steel sheets in steel constructions
- fixing profiled steel sheets in hot-rolled steel constructions



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

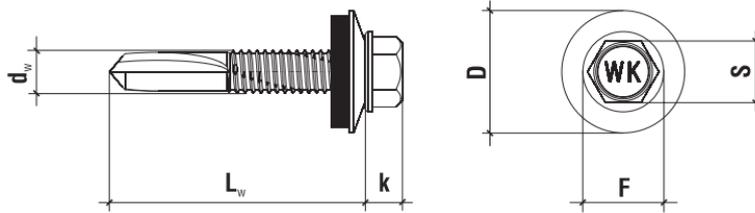
**Section 2. METHOD OF INSTALLATION**

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
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 (max. 1800 rpm), 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]	5,5
Drilling capacity	$\Sigma t_i$ [mm]	$\leq 12$
Wrench size	S [mm]	SW-8
Head height	k [mm]	4,9
Head diameter	F [mm]	10,5
Tip length	[mm]	15,0
Screw material	-	carbon steel
Corrosion protection	WSS	galvanized zinc coating min. 12 $\mu\text{m}$
	WSS-D	SQ Ceramic coating
EPDM washer D [mm]	WSS	steel Z16
	WSS-D	aluminium A16
Coating to RAL palette	-	min. 60 $\mu\text{m}$
Substrate material	-	steel $\geq$ S280GD
European Technical Assessment	-	ETA-16/0443

INSTALLATION PARAMETERS		
Parameter	Unit	Value
Screw diameter	$d_w$ [mm]	5,5
Diameter of hole in the substrate	$d_0$ [mm]	-
Min. depth of hole in the substrate	$h_0$ [mm]	-
Anchorage depth	$h_{\text{eff}}$ [mm]	push-through
Min. substrate thickness	$h_{\text{min}}$ [mm]	4,0
Min. spacing	$s_{\text{min}}$ [mm]	50
Min. distance from edge	$c_{\text{min}}$ [mm]	25

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 ÷ 2,00
4,00 ÷ 10,00	3,81/1,53	3,81/1,88	3,81/2,50	3,81/2,87	3,81/2,89	3,81/2,89

\*Partial safety factor of 1.33 recommended

SELECTION TABLE						
WSS (galvanized zinc coating ZN)	WSS-RAL* (galvanized zinc coating ZN + RAL)	WSS-D* (SQ Ceramic coating)	WSS-D-RAL* (SQ Ceramic coating + RAL)	Screw dimensions	Max. usable length	Number of pieces in a box
				$d_w \times L_w$ [mm]	$t_{\text{fix}}$ [mm]	[pcs]
WSS-55032-Z16	WSS-55032-Z16-RAL	WSS-D-55032-A16	WSS-D-55032-A16-RAL	5,5 x 32	2	250
WSS-55038-Z16	WSS-55038-Z16-RAL	WSS-D-55038-A16	WSS-D-55038-A16-RAL	5,5 x 38	5	250
WSS-55050-Z16	WSS-55050-Z16-RAL	WSS-D-55050-A16	WSS-D-55050-A16-RAL	5,5 x 50	17	250

\*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.