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# 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.**



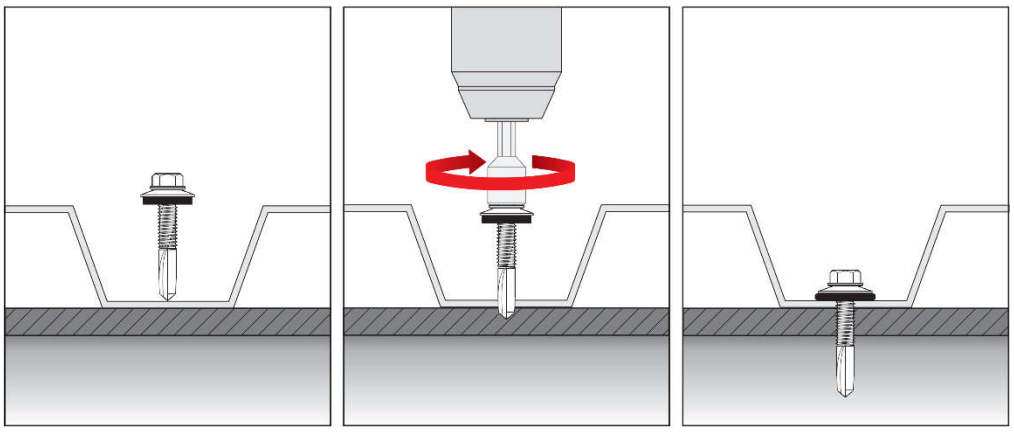
**Use:**

- **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**

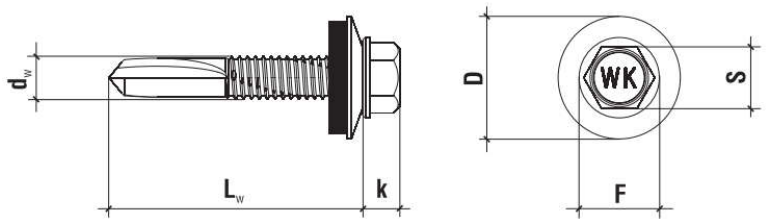
## Section 2. METHOD OF INSTALLATION

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, 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] | ≤ 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 µm |
| | WSS-D | SQ Ceramic coating |
| EPDM washer D [mm] | WSS | steel Z16 |
| | WSS-D | aluminium A16 |
| Coating to RAL palette | - | min. 60 µm |
| Substrate material | - | steel ≥ 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 | $h_{eff}$ [mm] | push-through |
| Min. substrate thickness | $h_{min}$ [mm] | 4,0 |
| Min. spacing | $s_{min}$ [mm] | 50 |
| Min. distance from edge | $c_{min}$ [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 |
| | | | | $d_w$ x $L_w$ [mm] | $t_{fix}$ [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

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. 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.

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