

## Section 1. PRODUCT DESCRIPTION

### CONSTRUCTION FLAT HEAD SCREW, TX – KMWHT

Construction screw KMWHT is made of yellow, blue (to order) zinc-plated low carbon steel or coated with SQ ceramic coating (to order). Screws are used for connecting structural wood elements including solid wood, glued laminated timber, X-Lam and LVL timber panels and wood-based panels. Screws have counter-sunk head with TX drive and a special cutting point suitable for connections in wooden structures.

#### Features and advantages of screws:

- wax coating – reduced torque, faster and easier installation
- counter-sunk head – ensures flush fitting of the screw in the installed member
- TX drive – guarantees optimum torque transfer as the screw advances
- cutting ribs – ensures aesthetic finish result
- shank ribs – reduce driving torque by reaming the hole
- serrated thread – cuts wood structural fibres as the screw advances
- special cutting point – makes the start of installation easier, without prior drilling
- length of screws up to 300 mm

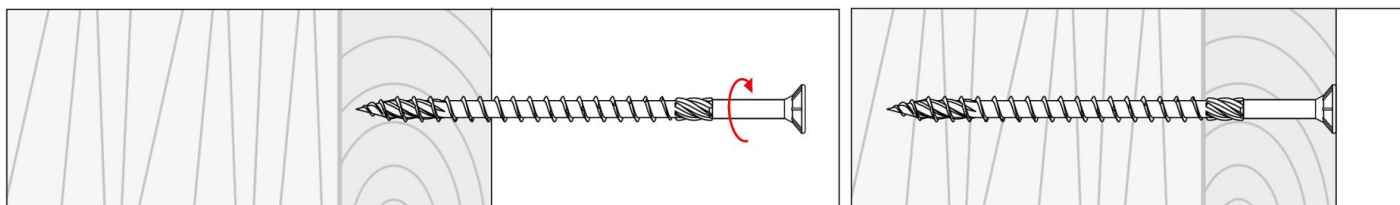


Zn - yellow    Zn - blue\*    SQ ceramic\*  
\*item on request and to order

Screws conform to European standard: PN-EN 14592:2008+A1:2012

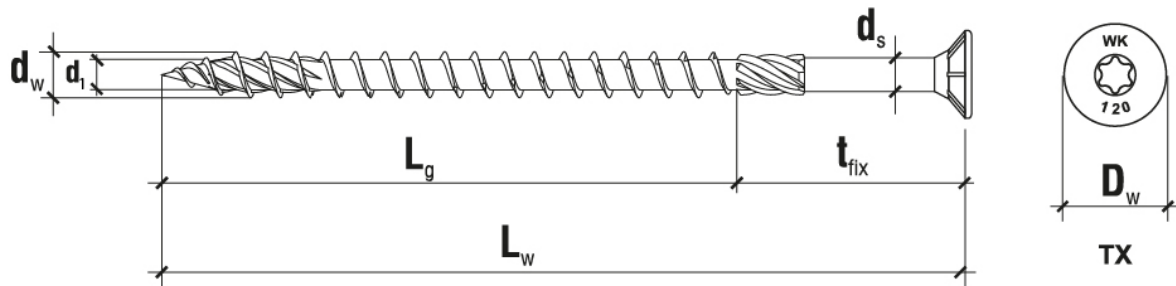
## Section 2. METHOD OF INSTALLATION

1. Original screws delivered by the manufacturer can be used only
2. Before installation select adequate length of screws depending on thickness of elements to be fastened and minimum anchorage depth
3. The fastened wooden elements should be defect-free (no knots, cracks, colourations, rots, structure and shape defects, mechanical damages) as any defects reduce their strength
4. Screws should be installed using screw gun and bit suitable for TX drive
5. Screws should be driven directly in wooden substrate without prior drilling



**PRODUCT DATA SHEET – KMWHT**

**Section 3. TECHNICAL DATA**



| TECHNICAL PARAMETERS  |                        |                          |       |       |       |        |        |
|-----------------------|------------------------|--------------------------|-------|-------|-------|--------|--------|
| Parameter             | Unit                   | Value                    |       |       |       |        |        |
| Thread outer diameter | $d_w$ [mm]             | 3                        | 3,5   | 4     | 4,5   | 5      | 6      |
| Thread inner diameter | $d_1$ [mm]             | 2                        | 2,25  | 2,65  | 2,8   | 3,1    | 3,8    |
| Smooth part diameter  | $d_s$ [mm]             | -                        | -     | -     | -     | -      | -      |
| Head diameter         | $D_w$ [mm]             | 6                        | 7     | 8     | 9     | 10     | 12     |
| Head area             | $A$ [mm <sup>2</sup> ] | 28                       | 38    | 50    | 64    | 79     | 113    |
| Length range          | $L_w$ [mm]             | 30-40                    | 30-50 | 30-70 | 40-80 | 40-120 | 50-300 |
| Drive type            | -                      | TX-10                    | TX-15 | TX-20 | TX-20 | TX-25  | TX-30  |
| Screw material        | -                      | carbon steel             |       |       |       |        |        |
| Corrosion protection  | galvanized             | ≥ 5 μm                   |       |       |       |        |        |
|                       | ceramic coating SQ     | ≥ 8 μm                   |       |       |       |        |        |
| Corrosivity category  | galvanized             | C1/C2                    |       |       |       |        |        |
|                       | ceramic coating SQ     | C3                       |       |       |       |        |        |
| Substrate material    | wood                   | ≥ C24                    |       |       |       |        |        |
| European standard     | -                      | PN-EN 14592:2008+A1:2012 |       |       |       |        |        |

| STRENGTH PARAMETERS                            |                                    |       |       |       |       |       |        |
|--|------------------------------------|-------|-------|-------|-------|-------|--------|
| Parameter                                      | Unit                               | ø3    | ø3,5  | ø4    | ø4,5  | ø5    | ø6     |
| Material characteristic yield strength         | $M_{y,k}$ [Nm]                     | 2,454 | 3,641 | 5,162 | 7,023 | 9,247 | 14,815 |
| Characteristic pull-out resistance             | $f_{ax,k,90}$ [N/mm <sup>2</sup> ] | 18,24 | 23,20 | 22,26 | 23,84 | 22,90 | 12,54  |
| Characteristic resistance to head pull-through | $f_{head,k}$ [N/mm <sup>2</sup> ]  | 26,34 | 26,63 | 25,56 | 26,45 | 23,50 | 21,06  |
| Characteristic resistance for tension          | $f_{tens,k}$ [kN]                  | 4,05  | 5,25  | 5,65  | 7,09  | 8,54  | 10,12  |
| Characteristic torsional strength              | $f_{tor,k}$ [Nm]                   | 1,83  | 2,33  | 2,90  | 4,67  | 5,70  | 9,57   |
| Screw resistance factor                        | $R_{tor,k}$ [Nm]                   | 0,68  | 1,08  | 1,33  | 2,39  | 2,86  | 2,33   |

| SELECTION TABLE     |                     |               |                |              |                       |                    |            |                           |
|---------------------|---------------------|---------------|----------------|--------------|-----------------------|--------------------|------------|---------------------------|
| Product marking     |                     |               | Screw diameter | Screw length | Working thread length | Max. usable length | Drive type | Number of pieces in a box |
| Galvanized - yellow | Galvanized - white* | SQ Ceramic*   | $d_w$ [mm]     | $L_w$ [mm]   | $L_g$ [mm]            | $t_{fix}$ [mm]     | [-]        | pcs                       |
| KMWHT-30030         | KMWHT-30030-B       | KMWHT-30030-D | 3,0            | 30           | 17                    | 13                 | TX-10      | 500                       |
| KMWHT-30035         | KMWHT-30035-B       | KMWHT-30035-D | 3,0            | 35           | 17                    | 18                 | TX-10      | 500                       |
| KMWHT-30040         | KMWHT-30040-B       | KMWHT-30040-D | 3,0            | 40           | 22                    | 18                 | TX-10      | 500                       |
| KMWHT-35030         | KMWHT-35030-B       | KMWHT-35030-D | 3,5            | 30           | 17                    | 13                 | TX-15      | 500                       |
| KMWHT-35035         | KMWHT-35035-B       | KMWHT-35035-D | 3,5            | 35           | 17                    | 18                 | TX-15      | 500                       |
| KMWHT-35040         | KMWHT-35040-B       | KMWHT-35040-D | 3,5            | 40           | 22                    | 18                 | TX-15      | 500                       |
| KMWHT-35050         | KMWHT-35050-B       | KMWHT-35050-D | 3,5            | 50           | 30                    | 20                 | TX-15      | 400                       |
| KMWHT-40030         | KMWHT-40030-B       | KMWHT-40030-D | 4,0            | 30           | 17                    | 13                 | TX-20      | 500                       |
| KMWHT-40035         | KMWHT-40035-B       | KMWHT-40035-D | 4,0            | 35           | 17                    | 18                 | TX-20      | 500                       |
| KMWHT-40040         | KMWHT-40040-B       | KMWHT-40040-D | 4,0            | 40           | 22                    | 18                 | TX-20      | 500                       |
| KMWHT-40045         | KMWHT-40045-B       | KMWHT-40045-D | 4,0            | 45           | 30                    | 15                 | TX-20      | 300                       |
| KMWHT-40050         | KMWHT-40050-B       | KMWHT-40050-D | 4,0            | 50           | 30                    | 20                 | TX-20      | 300                       |
| KMWHT-40060         | KMWHT-40060-B       | KMWHT-40060-D | 4,0            | 60           | 35                    | 25                 | TX-20      | 250                       |
| KMWHT-40070         | KMWHT-40070-B       | KMWHT-40070-D | 4,0            | 70           | 40                    | 30                 | TX-20      | 250                       |

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|             |               |               |     |     |    |     |       |     |
|-------------|---------------|---------------|-----|-----|----|-----|-------|-----|
| KMWHT-45040 | KMWHT-45040-B | KMWHT-45040-D | 4,5 | 40  | 22 | 18  | TX-20 | 250 |
| KMWHT-45050 | KMWHT-45050-B | KMWHT-45050-D | 4,5 | 50  | 30 | 20  | TX-20 | 250 |
| KMWHT-45060 | KMWHT-45060-B | KMWHT-45060-D | 4,5 | 60  | 35 | 25  | TX-20 | 250 |
| KMWHT-45070 | KMWHT-45070-B | KMWHT-45070-D | 4,5 | 70  | 40 | 30  | TX-20 | 250 |
| KMWHT-45080 | KMWHT-45080-B | KMWHT-45080-D | 4,5 | 80  | 50 | 30  | TX-20 | 250 |
| KMWHT-50040 | KMWHT-50040-B | KMWHT-50040-D | 5,0 | 40  | 22 | 18  | TX-25 | 500 |
| KMWHT-50050 | KMWHT-50050-B | KMWHT-50050-D | 5,0 | 50  | 30 | 20  | TX-25 | 300 |
| KMWHT-50060 | KMWHT-50060-B | KMWHT-50060-D | 5,0 | 60  | 35 | 25  | TX-25 | 200 |
| KMWHT-50070 | KMWHT-50070-B | KMWHT-50070-D | 5,0 | 70  | 40 | 30  | TX-25 | 200 |
| KMWHT-50080 | KMWHT-50080-B | KMWHT-50080-D | 5,0 | 80  | 50 | 30  | TX-25 | 200 |
| KMWHT-50090 | KMWHT-50090-B | KMWHT-50090-D | 5,0 | 90  | 50 | 40  | TX-25 | 200 |
| KMWHT-50100 | KMWHT-50100-B | KMWHT-50100-D | 5,0 | 100 | 60 | 40  | TX-25 | 200 |
| KMWHT-50120 | KMWHT-50120-B | KMWHT-50120-D | 5,0 | 120 | 70 | 50  | TX-25 | 200 |
| KMWHT-60050 | KMWHT-60050-B | KMWHT-60050-D | 6,0 | 50  | 30 | 20  | TX-30 | 200 |
| KMWHT-60060 | KMWHT-60060-B | KMWHT-60060-D | 6,0 | 60  | 35 | 25  | TX-30 | 200 |
| KMWHT-60070 | KMWHT-60070-B | KMWHT-60070-D | 6,0 | 70  | 40 | 30  | TX-30 | 200 |
| KMWHT-60080 | KMWHT-60080-B | KMWHT-60080-D | 6,0 | 80  | 50 | 30  | TX-30 | 200 |
| KMWHT-60090 | KMWHT-60090-B | KMWHT-60090-D | 6,0 | 90  | 50 | 40  | TX-30 | 100 |
| KMWHT-60100 | KMWHT-60100-B | KMWHT-60100-D | 6,0 | 100 | 60 | 40  | TX-30 | 100 |
| KMWHT-60120 | KMWHT-60120-B | KMWHT-60120-D | 6,0 | 120 | 70 | 50  | TX-30 | 100 |
| KMWHT-60140 | KMWHT-60140-B | KMWHT-60140-D | 6,0 | 140 | 70 | 70  | TX-30 | 100 |
| KMWHT-60160 | KMWHT-60160-B | KMWHT-60160-D | 6,0 | 160 | 75 | 85  | TX-30 | 100 |
| KMWHT-60180 | KMWHT-60180-B | KMWHT-60180-D | 6,0 | 180 | 75 | 105 | TX-30 | 100 |
| KMWHT-60200 | KMWHT-60200-B | KMWHT-60200-D | 6,0 | 200 | 75 | 125 | TX-30 | 100 |
| KMWHT-60220 | KMWHT-60220-B | KMWHT-60220-D | 6,0 | 220 | 75 | 145 | TX-30 | 100 |
| KMWHT-60240 | KMWHT-60240-B | KMWHT-60240-D | 6,0 | 240 | 75 | 165 | TX-30 | 100 |
| KMWHT-60260 | KMWHT-60260-B | KMWHT-60260-D | 6,0 | 260 | 75 | 185 | TX-30 | 100 |
| KMWHT-60280 | KMWHT-60280-B | KMWHT-60280-D | 6,0 | 280 | 75 | 205 | TX-30 | 100 |
| KMWHT-60300 | KMWHT-60300-B | KMWHT-60300-D | 6,0 | 300 | 75 | 225 | TX-30 | 100 |

\*item 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.