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PRODUCT DATA SHEET – KMWHT

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 200 mm**

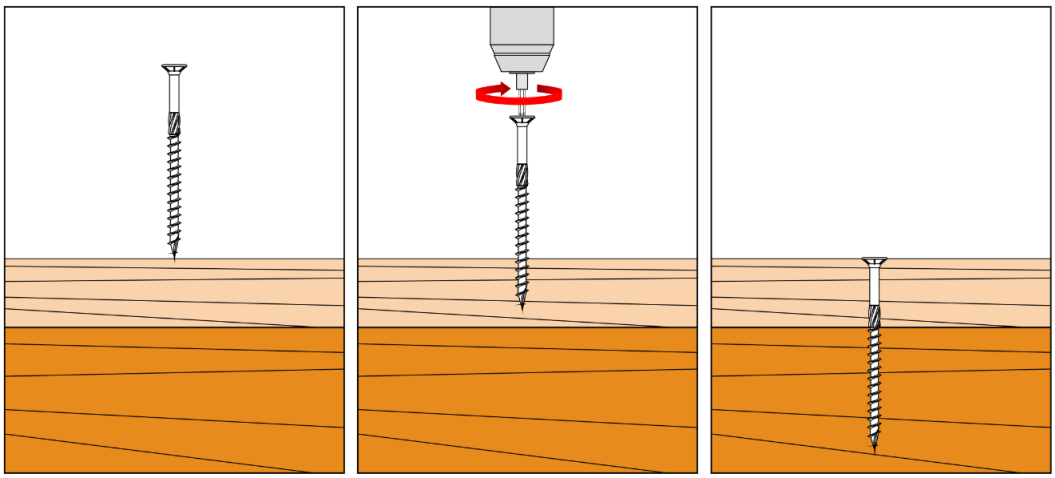
Zn - yellow **Zn - blue*** **SQ ceramic***

*Item on request and to order

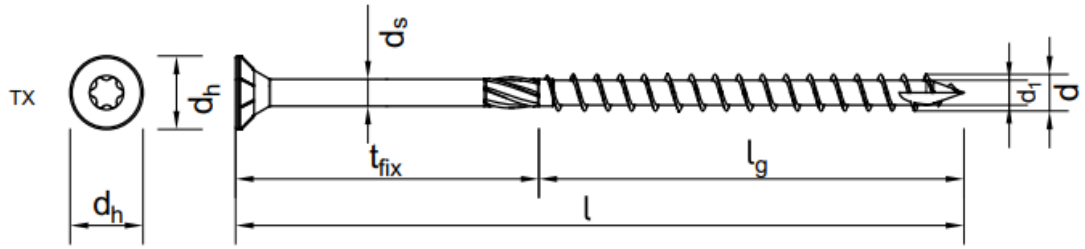
Screws conform to European standard: PN-EN 14592:2008+A1:2012

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



Section 3. TECHNICAL DATA



TECHNICAL PARAMETERS							
Parameter	Unit	Value					
Thread outer diameter	d [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_h [mm]	6	7	8	9	10	12
Head area	A [mm^2]	28	38	50	64	79	113
Length range	l [mm]	30-40	30-50	30-70	40-80	40-120	50-200
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^2]	18,24	23,20	22,26	23,84	22,90	12,54
Characteristic resistance to head pull-through	$f_{head,k}$ [N/mm^2]	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	Usable length	Drive type	Number of pieces in a box
	d [mm]	l [mm]	l_g [mm]	t_{fix} [mm]	[-]	pcs
KMWHT-30030	3,0	30	17	13	TX-10	500
KMWHT-30035	3,0	35	17	18	TX-10	500
KMWHT-30040	3,0	40	22	18	TX-10	500
KMWHT-35030	3,5	30	17	13	TX-15	500
KMWHT-35035	3,5	35	17	18	TX-15	500
KMWHT-35040	3,5	40	22	18	TX-15	500
KMWHT-35050	3,5	50	30	20	TX-15	400
KMWHT-40030	4,0	30	17	13	TX-20	500
KMWHT-40035	4,0	35	17	18	TX-20	500
KMWHT-40040	4,0	40	22	18	TX-20	500
KMWHT-40045	4,0	45	30	15	TX-20	300
KMWHT-40050	4,0	50	30	20	TX-20	300
KMWHT-40060	4,0	60	35	25	TX-20	250
KMWHT-40070	4,0	70	40	30	TX-20	250
KMWHT-45040	4,5	40	22	18	TX-20	250

KMWHT-45050	4,5	50	30	20	TX-20	250
KMWHT-45060	4,5	60	35	25	TX-20	250
KMWHT-45070	4,5	70	40	30	TX-20	250
KMWHT-45080	4,5	80	50	30	TX-20	250
KMWHT-50040	5,0	40	22	18	TX-25	500
KMWHT-50050	5,0	50	30	20	TX-25	300
KMWHT-50060	5,0	60	35	25	TX-25	200
KMWHT-50070	5,0	70	40	30	TX-25	200
KMWHT-50080	5,0	80	50	30	TX-25	200
KMWHT-50090	5,0	90	50	40	TX-25	200
KMWHT-50100	5,0	100	60	40	TX-25	200
KMWHT-50120	5,0	120	70	50	TX-25	200
KMWHT-60050	6,0	50	30	20	TX-30	200
KMWHT-60060	6,0	60	35	25	TX-30	200
KMWHT-60070	6,0	70	40	30	TX-30	200
KMWHT-60080	6,0	80	50	30	TX-30	200
KMWHT-60090	6,0	90	50	40	TX-30	100
KMWHT-60100	6,0	100	60	40	TX-30	100
KMWHT-60120	6,0	120	70	50	TX-30	100
KMWHT-60140	6,0	140	70	70	TX-30	100
KMWHT-60160	6,0	160	70	90	TX-30	100
KMWHT-60180	6,0	180	70	110	TX-30	100
KMWHT-60200	6,0	200	70	130	TX-30	100

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.