

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

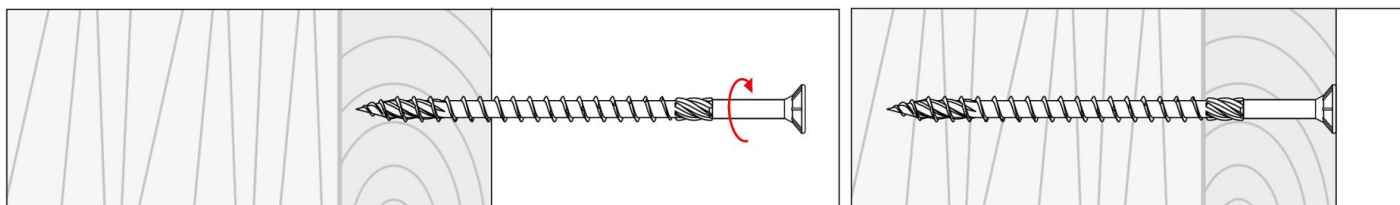


Zn - yellow Zn - blue* SQ ceramic*
*item on request and to order

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

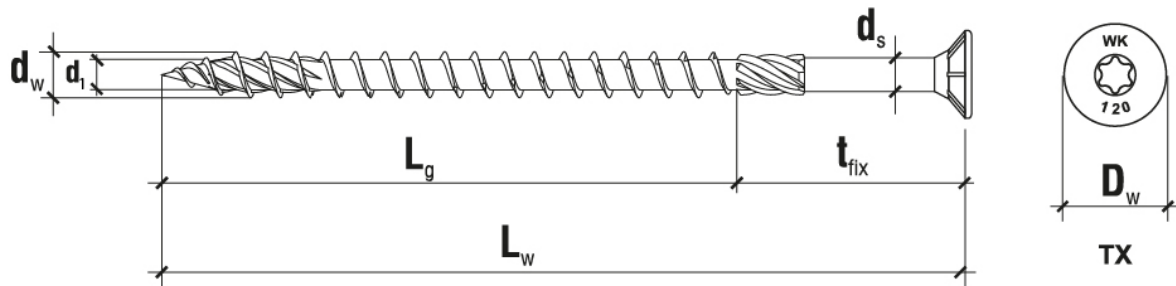
Section 2. METHOD OF INSTALLATION

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



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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 ²]	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	$\geq 5 \mu\text{m}$					
	ceramic coating SQ	$\geq 8 \mu\text{m}$					
Corrosivity category	galvanized	C1/C2					
	ceramic coating SQ	C3					
Substrate material	wood	$\geq \text{C24}$					
European standard	-	PN-EN 14592:2008+A1:2012					

STRENGTH PARAMETERS							
Parameter	Unit	$\varnothing 3$	$\varnothing 3,5$	$\varnothing 4$	$\varnothing 4,5$	$\varnothing 5$	$\varnothing 6$
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	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.