

PRODUCT DATA SHEET

PANELTWISTEC, WASHER HEAD FT A2

PRODUCT DESCRIPTION

The Paneltwistec fully threaded screw maximises the load-bearing capacity of connections thanks to its high thread extraction resistance. It is, of course, suitable for timber-timber and steel-timber connections but has been specially designed for connections between our solar roof hooks and rafters. Thanks to the screw tip's special geometry with a self-clearing groove a splitting effect during screwing in is prevented; what's more the screw-in resistance is also reduced. Thanks to the large head diameter, significantly higher tightening and head pull-through values are achieved.

APPLICATIONS

- Conditionally corrosion-resistant and suitable for use in service classes 1, 2 and 3 according to DIN EN 1995 (Eurocode 5)
- Suitable for salty atmospheres under certain circumstances
- Conditionally acid-resistant
- Suitable for woods containing high levels of tannin, such as cumarú, oak, merbau, robinia, etc.
- Not suitable for chlorinated atmospheres

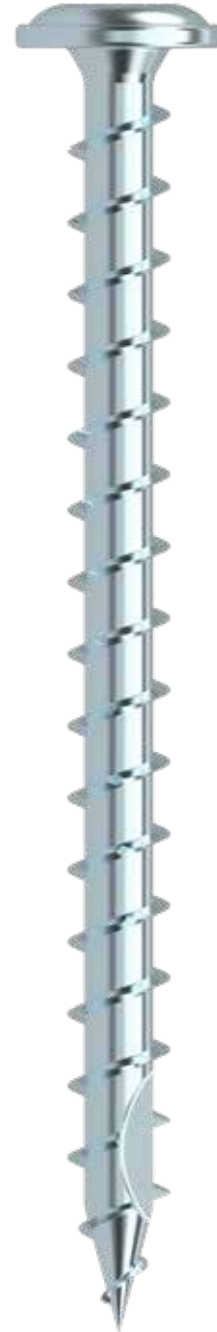
MATERIAL

- A2 stainless steel



CERTIFICATION

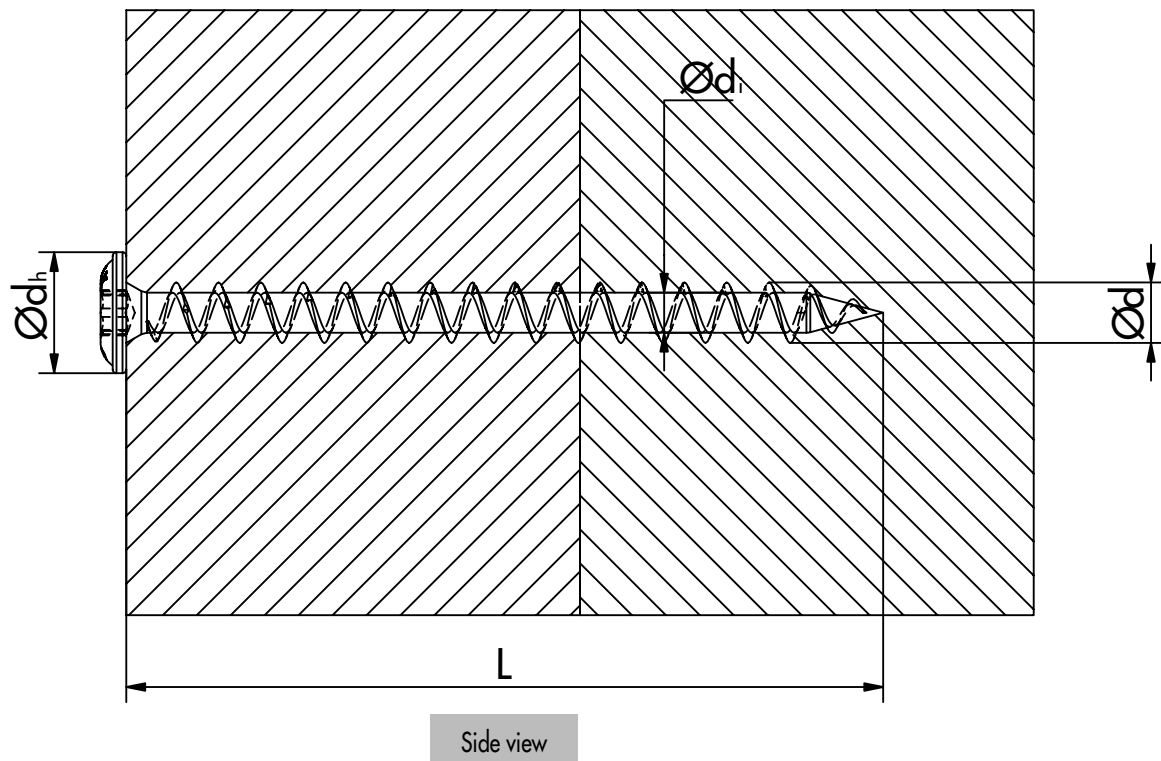
- **Requested:** European Technical Assessment ETA 11/0024
Self-tapping screws as wood connectors



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TECHNICAL INFORMATION



Paneltwistec, washer head FT A2

Nominal-Ø	Head-Ø	Root-Ø	Head shape	Head angle	char. tensile capacity ¹⁾	char. yield moment ¹⁾	char. withdrawal parameter ¹⁾	char. Head pull-through parameter ¹⁾	char. torsional strength ¹⁾
d [mm]	dh [mm]	di [mm]	–	[degree °]	f _{tens,k} [kN]	M _{y,k} [Nm]	f _{ax,k} [N/mm ²]	f _{head,k} [N/mm ²]	f _{tor,k} [Nm]
8,0	16	5,3	TK	60,0	11	10,7	11,1	12,0	28,0

¹⁾ The values have been taken from ETA 11/0024 and DoP-ETA110024-05-2017. We cannot guarantee that there are no typographical or printing errors and therefore recommend that you check the documents mentioned above.

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Dimensions				Extraction resistance	Head pull-through resistance	Shearing wood-wood				Shearing steel-wood			
d x L [mm]	dk [mm]	AD [mm]	ET [mm]	F _{ax, 90, k} [kN]	F _{ax, head, Rk} [kN]	F _{io, R} [kN]	F _{io, R} [kN]	F _{io, R} [kN]	F _{io, R} [kN]	t [mm]	F _{io, RK} [kN]	F _{io, R} [kN]	
8,0 x 100	16,0	50	50	8,88	3,07	3,21	2,78	2,97	2,97	3	4,67	4,24	
						α = 0°	α = 90°	αβ = 90°	αβ = 0°	α = 0°			α = 90°

Dimensioning according to ETA-11/0024. Bulk density $\rho_k = 350 \text{ kg/m}^3$. All stated values must be considered as dependent on the assumptions made and represent design examples.

All values are calculated minimum values and subject to typesetting and printing errors.

a) The characteristic values for the load-bearing capacity R_k must not be equated with the max. possible action (max. force). Characteristic values for the load-bearing capacity R_k must be reduced to the design values R_d with regard to the service class and load duration class: $R_d = R_k \cdot k_{mod} / \gamma_M$. The design values for the load-bearing capacity R_d must be compared to the design values for the actions $E_d (R_d \geq E_d)$.

Example:

Characteristic value for the continuous action (dead load) $G_k = 2.00 \text{ kN}$ and variable action, e.g. snow load $Q_k = 3.00 \text{ kN}$. $k_{mod} = 0.9$. $\gamma_M = 1.3$.

→ Design value for the action $E_d = 2.00 \cdot 1.35 + 3.00 \cdot 1.5 = 7.20 \text{ kN}$.

The load-bearing capacity of the connection is considered to be proven if $R_d \geq E_d$. → $\min R_k = R_d \cdot \gamma_M / k_{mod}$

That is to say that the characteristic minimum value for the load-bearing capacity is calculated as: $\min R_k = R_d \cdot \gamma_M / k_{mod} \rightarrow R_k = 7.20 \text{ kN} \cdot 1.3 / 0.9 = 10.40 \text{ kN}$ → Comparison with the table values

Attention: These are planning aids. The projects must always be designed by authorised persons.

PRODUCT TABLE

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Art. no.	Dimension $\varnothing d \times L$ [mm]	Drive	Thread length [mm]	PU
903210	8,0 x 100	TX40 •	Fully threaded	50

If you are not familiar with how this product is used, and particularly with the product's intended use, please contact our Application Technology department (Technik@eurotec.team).