

EC DECLARATION OF PERFORMANCE

According to

Construction Products Regulation : (EU) No. 305/2011

PANTHER T&H INDUSTRY CO., LTD.

Floor 11-4, No.186, 2 Sec. Dong Shin Road, Taichung Taiwan

TEL: +886-4-24731513

FAX: +886-4-24726831

Declare under our sole responsibility that the product:

Product: Chipboard screws

Intended use: For timber structure load.

Product identification and the initial-type findings: Refer to Annex I (Page 2)

To which this declaration relates is in conformity with

System 3 of (EU) No. 305/2011 and EN 14592:2008+A1:2012

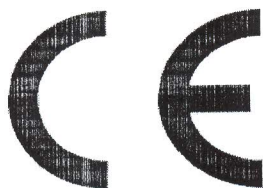
and are tested by

STROJÍRENSKÝ ZKUŠEBNÍ ÚSTAV, s. p. (Notified Body No. 1015)

The reference test report no.:

ϕ 2.5mm / No. 30-10054/1 ϕ 3.0mm / No. 30-10054/2 ϕ 3.5mm / No. 30-10054/3
 ϕ 4.0mm / No. 30-10054/4 ϕ 4.5mm / No. 30-10054/5 ϕ 5.0mm / No. 30-10054/6
 ϕ 6.0mm / No. 30-10054/7 ϕ 8.0mm / No. 30-10054/8 ϕ 10.0mm / No. 30-10054/9

| Essential characteristics | Performance | Harmonised technical specification |
|--------------------------------------|----------------------|------------------------------------|
| Mechanical resistance and stability | Reference to Annex 1 | EN 14592:2008+A1:2012 |
| Safety in case of fire | A1 | EN 13501-1:2007+A1:2009 |
| Hygiene, health and the environment | NPD | - |
| Safety and accessibility in use | NPD | - |
| Protection against noise | NPD | - |
| Energy economy and heat retention | NPD | - |
| Sustainable use of natural resources | NPD | - |



Date: 2019/11/29

Position: Q.C. MANAGER

Signature: Thomas Chen

ANNEX I Product identification and the initial-type testing findings

Table 1:

| Product | Length | Characteristic yield moment $M_{y,k}$ [Nmm] | | characteristic withdrawal parameter $f_{ax,k}$ [N/mm ²] | | Characteristic head pull-through parameter $f_{head,k}$ [N/mm ²] | Characteristic tensile capacity $f_{tens,k}$ [kN] | Characteristic torsional ratio |
|----------------------|--|---|----------------|---|-------------------------|--|---|--------------------------------|
| | | | | Loading across the fibre | Loading along the fibre | | | |
| Screw ϕ 2.5 mm | 10-40 mm | 1 470 | | 16,71 | 13,27 | See Table 2 | 2,80 | 3,04 |
| Screw ϕ 3.0 mm | 12-50 mm | 2 583 | | 17,00 | 11,09 | | 3,69 | 2,82 |
| Screw ϕ 3.5 mm | 14-60 mm | 2 736 | | 17,40 | 12,05 | | 5,37 | 2,39 |
| Screw ϕ 4.0 mm | 16-80 mm | 4 252 | | 17,13 | 14,31 | | 6,38 | 2,85 |
| Screw ϕ 4.5 mm | 18-90 mm | 5 692 | | 17,51 | 13,76 | | 7,93 | 3,02 |
| Screw ϕ 5.0 mm | 20-150 mm | 7 718 | | 17,32 | 12,12 | | 9,41 | 3,34 |
| Screw ϕ 6.0 mm | 24-300 mm | 12 773 | | 17,73 | 11,59 | | 14,67 | 3,23 |
| Screw ϕ 8.0 mm | 32-600 mm | 30 672 | | 15,11 | 11,98 | | 24,80 | 3,26 |
| Screw ϕ 10.0 mm | 40-600 mm | Thread section | Smooth section | 14,73 | 10,23 | | 32,56 | 3,66 |
| | | 42 574 | 74 386 | | | | | |
| Material | Carbon Steel SAE1018/SAE1022 | | | | | | | |
| Corrosion resistance | Zinc plated / yellow zinc plated (service class 1 acc. to EN 1995-1-1) | | | | | | | |

Table 2:

| Characteristic head pull-through parameter $f_{head,k} [N/mm^2]$ | | | |
|--|-------------|-------|-------|
| Head Type | Double Flat | pan | Oval |
| Screw ϕ 2.5 mm | 25,29 | 29,29 | 24,74 |
| Screw ϕ 3.0 mm | 24,23 | 28,04 | 24,36 |
| Screw ϕ 3.5 mm | 24,14 | 29,77 | 23,79 |
| Screw ϕ 4.0 mm | 22,07 | 27,46 | 22,57 |
| Screw ϕ 4.5 mm | 22,73 | 25,98 | 23,10 |
| Screw ϕ 5.0 mm | 21,23 | 26,54 | 20,58 |
| Screw ϕ 6.0 mm | 23,66 | 27,75 | 23,44 |
| Screw ϕ 8.0 mm | 22,70 | ~ | ~ |
| Screw ϕ 10.0 mm | 22,02 | ~ | ~ |