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# PRODUCT DATASHEET

## COMPOSITE PANEL FASTENER

### Product Details

Designed for: *Fixing cladding/roofing applications to hot/cold purlins/rails. Fastening liner panels and general components to steel.*

Head style: *Hexagonal*

Drive bit: *5/16" hexagonal*

Thread form: *Coarse thread*

Shank material: *Carbon steel*

Material grade: *AISI C1022*

Coating: *500hr Evoshield®*



### Composite panel fastener range – for light steel

Product Code	Size	Washer	Insulation Thickness Range	Drilling Capacity	Recommended  drill speed
TSBWHT5.5-80-3	5.5x80mm	16mm	40 – 65mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT5.5-105-3	5.5x105mm	16mm	55 – 90mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT5.5-135-3	5.5x135mm	16mm	60 – 120mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT5.5-150-3	5.5x150mm	16mm	70 – 135mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT19-5.5-185-3	5.5x185mm	19mm	120 – 170mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT19-5.5-225-3	5.5x225mm	19mm	145 – 210mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT5.5-240-3	5.5x240mm	19mm	145 – 210mm	1.2 – 3.5mm	1500 – 2500 RPM

### Technical Data

Ultimate pull out values							
Diameter	Drill point	Steel Thickness					
		1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
5.5mm	Tek 3	1.7kN	2.1kN	2.7kN	4.6kN	4.8kN	5.5kN

  

Hardness Rating (Vickers scale)			Ultimate Mechanical Performance			Pullover Performance		
Diameter	Surface Hardness	Core Hardness	Diameter	Tensile Strength	Shear Strength	Diameter	In 0.6mm steel	In 1.2mm steel
5.5mm	550.0HV	465.0HV	5.5mm	16.5kN	10.3kN	5.5mm	3.1kN	6.0kN

**NOTE:** The results expressed in the datasheet are taken as mean loads from a range of empirical tests and are ultimate unfactored loads. Each specifier or end user should make his/ her own decision on what safety factors to use relevant to their design application (such as BS 5950, EN 1991, etc).

Errors and Omissions Excepted.

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# ABOUT OUR TESTING



7485

All test results were derived from empirical testing performed by ETAS (Evolution Testing & Analytical Services), a UKAS (United Kingdom Accreditation Service) accredited testing laboratory (Accreditation No. 7485). The following tests were performed to the following standards.

## Testing Procedures

Test/ Parameter	Standard/ Method/ Procedure
Ultimate Tensile	<b>ISO 6892-1: 2009</b> <i>"Metallic materials – tensile testing – Part 1: Method of test at room temperature".</i>
Ultimate Shear	<b>MIL-STD-1312-13</b> <i>"Military Standard: Fastener test method (Method 13) Double shear test".</i>
Pull Out (Withdrawal Force)	<b>EN 14566: 2009</b> <i>"Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".</i>
Pull Over	<b>EN 14592: 2008</b> <i>"Timber structures. Dowel type fasteners. Requirements".</i>
Hardness	<b>ISO 650 7-1: 2005</b> <i>"Metallic materials – Vickers hardness test – Part 1: Test method".</i>
Corrosion Resistance	<b>EN ISO 9227: 2012</b> <i>"Corrosion tests in artificial atmospheres. Salt spray tests".</i>
Drilling Time Test	<b>EN 14566: 2009</b> <i>"Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".</i>

### Laboratory Contact Details

### Evolution Testing & Analytical Services

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