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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
TSBWHT12-5.5-135-3	5.5x135mm	12mm	60 – 120mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT12-5.5-150-3	5.5x150mm	12mm	75 – 135mm	1.2 – 3.5mm	1500 – 2500 RPM
TSBWHT12-5.5-185-3	5.5x185mm	12mm	115 – 170mm	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).

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ABOUT OUR TESTING



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.



7485

Testing Procedures

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

Laboratory Contact Details

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