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PRODUCT DATASHEET

BI-METAL COMPOSITE PANEL FASTENER

Product Details

Designed for: *Fixing cladding/roofing applications to hot/cold purlins/rails. Fastening liner panels and general components to steel. Fastening brick-tie channel through Insulation to SFS.*

Head style: *Hexagonal*

Drive bit: *5/16" hexagonal*

Thread form: *Coarse thread*

Shank material: *AISI A304*

Material grade: *AISI A304*

Recommended drill speed: *1500 – 2500RPM*



Bi-metal Composite panel fastener range

Product Code	Size	Washer	Insulation Thickness Range
BMTSBWHT5.5-80-3	5.5 x 80mm	16mm	3–65mm
BMTSBWHT5.5-105-3	5.5 x 105mm	16mm	55–90mm
BMTSBWHT5.5-135-3	5.5 x 135mm	16mm	60–120mm
BMTSBWHT5.5-150-3	5.5 x 150mm	16mm	75–135mm
BMTSBWHT5.5-185-3	5.5 x 185mm	19mm	60–120mm
BMTSBWHT5.5-235-3	5.5 x 235mm	19mm	145–210mm
BMTSBWHT5.5-105-5	5.5 x 105mm	16mm	110–170mm
BMTSBWHT5.5-125-5	5.5 x 125mm	16mm	25–70mm
BMTSBWHT5.5-150-5	5.5 x 150mm	19mm	50–90mm
BMTSBWHT5.5-185-5	5.5 x 185mm	19mm	65–115mm

Technical Data

Tek 3 range – unfactored 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	2.5kN	3.3kN	4.1kN	5.4kN

Tek 5 range – unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		4mm	5mm	6mm	8mm	10mm	12.5mm
5.5mm	Tek 5	6.4kN	7.7kN	10.1kN	11.4kN	12.3kN	12.8kN

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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Hardness Rating (Vickers scale)		
Diameter	Surface Hardness	Core Hardness
5.5mm	465.6 HV0.3	323.7 HV0.3

Pullover Performance		
Diameter	In 0.6mm steel	In 1.2mm steel
5.5mm	2.4kN	8.1kN

Ultimate Mechanical Performance		
Diameter	Tensile Strength	Shear Strength
5.5mm	13.3kN	9.9kN

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.

Testing Procedures

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



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Laboratory Contact Details

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