



Evolution Fasteners (UK) Ltd
 Units 2A & 2B Clyde Gateway Trade Park
 Dalmarnock Road, Rutherglen, Glasgow G73 1AN
 Tel: +44 (0)141 647 7100 / Fax: +44 (0)141 647 5100
 Email: technical@evolutionfasteners.co.uk



www.evolutionfasteners.co.uk



PRODUCT DATASHEET

BI-METAL TEK SCREW

Product Details

Designed for Purpose: *Fastening in aluminium sheeting and panels*
 Head style: *Hexagonal*
 Drive bit: *5/16" hexagonal*
 Thread form: *Twin, coarse thread (Tek 3)/fine thread (Tek 5)*
 Shank material: *Stainless steel*
 Material grade: *AISI A304*
 Coating: *Electroplated zinc*
 Recommended drill speed: *1500 – 2500 RPM*



Tek 3 range – for light steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Washer	Steel thickness
BMHH5.5-25-3	5.5x25mm	Tek 3	14.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMHH5.5-38-3	5.5x38mm	Tek 3	27.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMHH5.5-50-3	5.5x50mm	Tek 3	38.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMHH5.5-65-3	5.5x65mm	Tek 3	55.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMHH5.5-80-3	5.5x80mm	Tek 3	68.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMHH5.5-100-3	5.5x100mm	Tek 3	88.0mm	1.2 – 3.5mm	N/A	1.2 – 3.5mm
BMBW5.5-25-3	5.5x25mm	Tek 3	11.0mm	1.2 – 3.5mm	16mmø bonded EPDM	1.2 – 3.5mm
BMBW5.5-38-3	5.5x38mm	Tek 3	24.0mm	1.2 – 3.5mm	16mmø bonded EPDM	1.2 – 3.5mm
BMBW5.5-50-3	5.5x50mm	Tek 3	35.0mm	1.2 – 3.5mm	16mmø bonded EPDM	1.2 – 3.5mm
BMBW5.5-75-3	5.5x75mm	Tek 3	60.0mm	1.2 – 3.5mm	16mmø bonded EPDM	1.2 – 3.5mm
BMBW5.5-100-3	5.5x100mm	Tek 3	75.0mm	1.2 – 3.5mm	16mmø bonded EPDM	1.2 – 3.5mm

Tek 5 range – for heavy steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Washer	Steel thickness
BMHH5.5-38-5	5.5x38mm	Tek 5	15.0mm	4.0 – 12.5mm	N/A	4.0 – 12.5mm
BMHH5.5-50-5	5.5x50mm	Tek 5	30.0mm	4.0 – 12.5mm	N/A	4.0 – 12.5mm
BMBW5.5-38-5	5.5x38mm	Tek 5	12.0mm	4.0 – 12.5mm	16mmø bonded EPDM	4.0 – 12.5mm
BMBW5.5-65-5	5.5x65mm	Tek 5	42.0mm	4.0 – 12.5mm	16mmø bonded EPDM	4.0 – 12.5mm
BMBW5.5-100-5	5.5x100mm	Tek 5	80.0mm	4.0 – 12.5mm	16mmø bonded EPDM	4.0 – 12.5mm

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.

Copyright © 2018 Evolution Fasteners (UK) Ltd. All rights reserved.



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	3.2kN	4.3kN	5.5kN

Tek 5 range – Unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
5.5mm	Tek 5	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	12.4kN

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	420.0HV	300.0HV	5.5mm	12.4kN	9.8kN	5.5mm	2.7kN	8.4kN

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".



7485

Laboratory Contact Details

Evolution Testing & Analytical Services

Units 2A & 2B Clyde Gateway Trade Park
Dalmarnock Road
Rutherglen
South Lanarkshire
G73 1AN

T: +44 (0)141 647 7100
F: +44 (0)141 647 5100