



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

## A2 BI-METAL PANCAKE HEAD SELF-DRILLING SCREW



### Product Details

Designed for: *Fixing steel to steel*  
 Head style: *Phillips 2*  
 Thread form: *Single coarse thread*  
 Drill point: *Tek 3/Tek5*  
 Material grade: *A2 stainless steel*  
 Coating: *Evoshield*

### Metal framing tek screw range

Product Code	Size	Drill point	Effective thread	Drilling Capacity	Head style	Steel thickness
BMTSPH5.5-19-3	5.5x19mm	Tek 3	10.0mm	1.2 – 3.5mm	Pancake	1.2 – 3.5mm
BMTSPH5.5-25-3	5.5x25mm	Tek 3	18.0mm	1.2 – 3.5mm	Pancake	1.2 – 3.5mm
BMTSLP5.5-38-5	5.5x38mm	Tek 5	22.0mm	4.0 – 12.5mm	Pancake	4.0 – 12.5mm

### Technical Data

Hardness Rating (Vickers scale)		
Diameter	Surface Hardness	Core Hardness
5.5mm	487.6 HV0.3	373.1 HV0.3

Ultimate Mechanical Performance		
Diameter	Tensile Strength	Shear Strength
5.5mm	6.2kN	4.5kN

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	1.2kN	1.7kN	2.1kN	3.4kN	4.5kN	6.1kN

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

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).



# 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	<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**  
Units 2A & 2B Clyde Gateway Trade Park  
Dalrnock Road  
Rutherglen  
South Lanarkshire  
G73 1AN  
**T:** (0141) 643 4125  
**F:** (0141) 647 5100  
**E:** sales@etasuk.com