



PRODUCT DATASHEET

BI-METAL WING-DRILL

TEK SCREW

Product Details

Designed for:	Fastening when stainless steel product is required e.g. in conjunction with aluminium sheeting/ panels and steel substrates
Head style:	Countersunk
Drive bit:	Phillips 3
Thread form:	Twin, coarse thread (Tek 3)/fine thread (Tek 5)
Shank material:	Stainless steel
Material grade:	AISI A304
Coating:	Electroplated zinc



Bi-metal wing drill tek screw range – for light steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed	Timber thickness
BMW D4.8-38-3	4.8x38mm	Tek 3	24.0mm	1.2 – 3.5mm	1500-2500 RPM	6.0 – 22.0mm
BMW D5.5-50-3	5.5x50mm	Tek 3	FULL	1.2 – 3.5mm	1500-2500 RPM	13.0 – 30.0mm
BMW D5.5-62-3	5.5x62mm	Tek 3	40.0mm	1.2 – 3.5mm	1500-2500 RPM	13.0 – 40.0mm
BMW D5.5-80-3	5.5x80mm	Tek 3	60.0mm	1.2 – 3.5mm	1500-2500 RPM	25.0 – 60.0mm
BMW D5.5-100-3	5.5x100mm	Tek 3	60.0mm	1.2 – 3.5mm	1500-2500 RPM	45.0 – 80.0mm
BMW D5.5-120-3	5.5x120mm	Tek 3	60.0mm	1.2 – 3.5mm	1500-2500 RPM	45.0 – 100.0mm

Bi-metal wing drill tek screw range – for heavy steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed	Timber thickness
BMW D5.5-65-5	5.5x65mm	Tek 5	FULL	4.0 – 12.5mm	1500-2500 RPM	10.0 – 28.0mm
BMW D5.5-85-5	5.5x85mm	Tek 5	50.0mm	4.0 – 12.5mm	1500-2500 RPM	30.0 – 50.0mm
BMW D5.5-110-5	5.5x110mm	Tek 5	50.0mm	4.0 – 12.5mm	1500-2500 RPM	45.0 – 90.0mm
BMW D5.5-135-5	5.5x135mm	Tek 5	50.0mm	4.0 – 12.5mm	1500-2500 RPM	45.0 – 100.0mm

Technical Data

Hardness Rating (Vickers scale)			Unfactored Mechanical Performance			Pullover Performance	
Diameter	Surface Hardness	Core Hardness	Diameter	Tensile Strength	Shear Strength	Diameter	Substrate – 50mm timber
4.8mm	390.0HV	270.0HV	4.8mm	9.8kN	8.2kN	4.8mm	1.6kN
5.5mm	390.0HV	270.0HV	5.5mm	11.6kN	9.8kN	5.5mm	3.0kN

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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Technical Data continued...

Tek 3 range – Unfactored pull out values

Diameter	Drill point	Steel Thickness					
		1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
4.8mm	Tek 3	1.9kN	2.7kN	3.5kN	4.5kN	5.0kN	6.3kN
5.5mm	Tek 3	2.0kN	2.4kN	3.6kN	4.3kN	5.1kN	6.7kN

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	4.5kN	5.9kN	7.3kN	8.9kN	10.7kN	11.9kN

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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