



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

ZINC COATED WING DRILL TEK SCREW

Product Details

Designed for: Fixing timber or composites to steel
 Head style: Countersunk or countersunk with nibs
 Drive bit: Phillips 3
 Thread form: Twin, coarse thread (Tek 3)/fine thread (Tek 5)
 Shank material: Carbon steel
 Material grade: AISI C1022



2008 = 01DW-01/14



Tek 3 range – for light steel

Product Code	Size	Drill point	Drilling Capacity	Recommended drill speed
ZWD4.2-38-3	4.2x38mm	Tek 3	1.2-3.5mm	1500-2500 RPM
ZWD4.8-38-3	4.8x38mm	Tek 3	1.2-3.5mm	1500-2500 RPM
ZWD50-3	4.8x50mm	Tek 3	1.2-3.5mm	1500-2500 RPM
ZWD62-3	5.5x62mm	Tek 3	1.2-3.5mm	1500-2500 RPM
ZWD80-3	5.5x80mm	Tek 3	1.2-3.5mm	1500-2500 RPM

Wing drill Tek 5 range – for heavy steel

Product Code	Size	Drill point	Drilling Capacity	Recommended drill speed
ZWD65-5	5.5x65mm	Tek 5	4.0 – 12.5mm	1500-2500 RPM
ZWD85-5	5.5x85mm	Tek 5	4.0 – 12.5mm	1500-2500 RPM

Technical Data

Hardness Rating (Vickers scale)			Ultimate Mechanical Performance		
Diameter	Surface Hardness	Core Hardness	Diameter	Tensile Strength	Shear Strength
4.2mm	560.0HV	480.0HV	4.2mm	7.1kN	10.0kN
4.8mm	570.0HV	490.0HV	4.8mm	11.9kN	17.4kN
5.5mm	590.0HV	480.0HV	5.5mm	18.6kN	26.6kN

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.



Technical Data

Tek 3 range – Ultimate pull out values							
Diameter	Drill point	Steel Thickness					
		1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
4.2mm	Tek 3	1.1kN	1.3kN	1.7kN	2.9kN	4.7kN	6.9kN
4.8mm	Tek 3	1.2kN	1.6kN	2.2kN	3.8kN	4.5kN	7.2kN
5.5mm	Tek 3	1.2kN	2.8kN	4.1kN	5.8kN	6.3kN	8.9kN

Tek 5 range – Ultimate pull out values							
Diameter	Drill point	Steel Thickness					
		4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
5.5mm	Tek 5	8.7kN	9.5kN	10.9kN	12.3kN	13.6kN	16.5kN

Pull Over Values in C16 Timber			
Diameter	4.2mm	4.8mm	5.5mm
	2.34kN	2.69kN	3.38kN

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: (0141) 643 4125
F: (0141) 647 5100