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
TOUGH BOARD SCREW

EUROPA
CE
EN 14566
2008 = 01DW-01/14

Product Details

Designed for:	*Fixing dense and hard surfaced boards to both drywall track/timber base materials*
Head style:	*Countersunk*
Drive bit:	*Phillips 2*
Thread form:	*Twin*
Coating:	*Black phosphate*
Shank material:	*Carbon steel*
Material grade:	*AISI C1022*
Effective thread legth:	*Fully threaded*
Drill point:	*Super sharp point*

Tough Board Screw Range

Product Code	Size	Fixture Thickness	Steel thickness	Recommended Drill Speed
F35	3.9 x 35.0mm	25.0mm	0.5 – 1.2mm	4000 – 6000RPM
F45	3.9 x 45.0mm	35.0mm	0.5 – 1.2mm	4000 – 6000RPM
F55	3.9 x 55.0mm	45.0mm	0.5 – 1.2mm	4000 – 6000RPM

Technical Data

Hardness Rating (Vickers scale)		
Diameter	**Surface Hardness**	**Core Hardness**
3.9mm	600.0HV	460.0HV

Ultimate mechanical performance		
Diameter	**Tensile Strength**	**Shear Strength**
3.9mm	7.4kN	6.0kN

Ultimate pull out values (steel section)			
Diameter	**Steel Thickness**		
	0.6mm	**1.0mm**	**1.2mm**
3.9mm	0.8kN	1.9kN	2.2kN

Ultimate pull out values (timber)	
Diameter	**Embedment Depth**
	15mm
3.9mm	0.8kN

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.

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	**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".*

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
E: sales@etasuk.com