

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 DRYWALL SCREWS

Product Details

| Designed for: | Fixing plaster board (and cementitious boards) to steel track and timber substrates in humid atmospheres |
|--------------------------|--|
| Head style: | Double countersunk with nibs |
| Drive bit: | Phillips No. 2 |
| Shank/ Head Material: | SAE 304 Stainless Steel (Euro Nomenclature = A2 Stainless Steel) |
| Point Material: | SAE C1022 Carbon Steel (Hardened) |
| Thread From: | Hi – Lo |
| Drilling Point: | TEK 2 |
| Effective Thread Length: | Fully Threaded |

Bi-metal Drywall Screw Range

| Product Code | Size (mm) | Box Quantity | Carton Quantity | Fixture thickness (mm) | Steel Thickness (mm) | Drill Speed (rpm) |
|--------------|--------------|-----------------|--------------------|------------------------------|----------------------------|----------------------|
| BMDW4.8-32 | 4.8 x 32.0 | 200 | 4,800 | 0.0 – 22.0 | 0.70 – 2.50 | 0.0 - 2500.0 |
| BMDW4.8-42 | 4.8 x 42.0 | 200 | 4,800 | 0.0 – 32.0 | 0.70 – 2.50 | 0.0 - 2500.0 |
| BMDW4.8-50 | 4.8 x 50.0 | 200 | 4,800 | 0.0 - 40.0 | 0.70 – 2.50 | 0.0 - 2500.0 |
| BMDW4.8-70 | 4.8 x 70.0 | 200 | 4,800 | 0.0 - 60.0 | 0.70 – 2.50 | 0.0 - 2500.0 |

Technical Data

| Ultimate Pull Out Loadings (kN) | | | | | | |
|---------------------------------------|---------------------------------------|----------------------|----------------------|---------|-----------|---------|
| Steel Substrates (S275 JR Mild Steel) | | | | | | |
| Major Diameter | | Steel Thickness (mm) | | | | |
| 4.8 mm · | 0.70 | 1.00 | 1.20 | 1.50 | 2.00 | 2.50 |
| | 1.10 kN | 1.20 kN | 1.60 kN | 1.80 kN | 2.20 kN | 3.60 kN |
| Timber Substrates | | | | | | |
| Major Diameter | Timber Grade | | Embedment Depth (mm) | | Load (kN) | |
| 4.8 mm | C16 (soft wood) | | 27.0 | | 2.60 | |
| | | | 35.0 | | 3.00 | |
| Masonry Substrates | | | | | | |
| Major Diameter | Masonry Grade | | Embedment Depth (mm) | | Load (kN) | |
| 4.8 mm | 7N Aerated Concrete (Breeze Block) | | 35.0 | | 0.8 | |

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.

Testing Procedures



7485

| Test/ Parameter | Standard/ Method/ Procedure |
|-----------------------------|---|
| Ultimate Tensile | ISO 6892-1: 2009 <i>"Metallic materials – tensile testing – Part 1: Method of test at room temperature".</i> |
| Ultimate Shear | MIL-STD-1312-13 <i>"Military Standard: Fastener test method (Method 13)</i> <i>Double shear test".</i> |
| Pull Out (Withdrawal Force) | EN 14566: 2009 <i>"Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".</i> |
| Pull Over | EN 14592: 2008 <i>"Timber structures. Dowel type fasteners. Requirements".</i> |
| 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 <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 Dalmarnock Road Rutherglen South Lanarkshire G73 1AN T: (0141) 647 7100 F: (0141) 647 5100 E: sales@etasuk.com |