



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

## TEK SCREW 6.3mm HEX HEAD

### Product Details

Designed for: *Fixing cladding/roofing applications to hot/cold rolled purlins/rails. Fastening liner panels and general components to steel.*

Head style: *Hexagonal*

Drive bit: *5/16" hexagonal*

Thread form: *Single, coarse thread (Tek 3)/fine thread (Tek 5)*

Shank material: *Carbon steel*

Material grade: *AISI C1022*

Coating: *500hr Evoshield®*



### Tek 3 range – for light steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed
TSHW6.3-25-3	6.3x25mm	Tek 3	16mm	1.2 – 3.5mm	1500-2500 RPM
TSHW6.3-38-3	6.3x38mm	Tek 3	30mm	1.2 – 3.5mm	1500-2500 RPM
TSHW6.3-50-3	6.3x50mm	Tek 3	42mm	1.2 – 3.5mm	1500-2500 RPM

### Tek 5 range – for heavy steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed
TSHW6.3-38-5	6.3x38mm	Tek 5	18mm	4.0 – 12.5mm	1500-2500 RPM
TSHW6.3-50-5	6.3x50mm	Tek 5	30mm	4.0 – 12.5mm	1500-2500 RPM

**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.

Copyright © 2019 Evolution Fasteners (UK) Ltd. All rights reserved.



## Technical Data

Hardness Rating (Vickers scale)		
Diameter	Surface Hardness	Core Hardness
6.3mm	373.0HV	600.0HV

Unfactored Mechanical Performance		
Diameter	Tensile Strength	Shear Strength
6.3mm	18.7kN	12.0kN

Tek 3 range – Unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
6.3mm	Tek 3	1.7kN	1.9kN	2.4kN	4.6kN	6.5kN	7.6kN

Tek 5 range – Unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
6.3mm	Tek 5	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	13.5kN

**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.

Copyright © 2019 Evolution Fasteners (UK) Ltd. All rights reserved.



# 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> "Metallic materials – tensile testing – Part 1: Method of test at room temperature".
Ultimate Shear	<b>MIL-STD-1312-13</b> "Military Standard: Fastener test method (Method 13) Double shear test".
Pull Out (Withdrawal Force)	<b>EN 14566: 2009</b> "Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".
Pull Over	<b>EN 14592: 2008</b> "Timber structures. Dowel type fasteners. Requirements".
Hardness	<b>ISO 650 7-1: 2005</b> "Metallic materials – Vickers hardness test – Part 1: Test method".
Corrosion Resistance	<b>EN ISO 9227: 2012</b> "Corrosion tests in artificial atmospheres. Salt spray tests".
Drilling Time Test	<b>EN 14566: 2009</b> "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  
 Dalrnock Road  
 Rutherglen  
 South Lanarkshire  
 G73 1AN  
 T: (0141) 643 4125  
 F: (0141) 647 5100  
 E: sales@etasuk.com