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# PRODUCT DATASHEET

## TEK SCREW 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
TSHW4.8-16-3	4.8x16mm	Tek 3	8mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-19-3	5.5x19mm	Tek 3	19mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-25-3	5.5x25mm	Tek 3	16mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-32-3	5.5x32mm	Tek 3	24mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-38-3	5.5x38mm	Tek 3	30mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-50-3	5.5x50mm	Tek 3	42mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-75-3	5.5x75mm	Tek 3	66mm	1.2 – 3.5mm	1500-2500 RPM
TSHW5.5-100-3	5.5x100mm	Tek 3	90mm	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
TSHW5.5-32-5	5.5x32mm	Tek 5	12mm	4.0 – 12.5mm	1500-2500 RPM
TSHW5.5-38-5	5.5x38mm	Tek 5	18mm	4.0 – 12.5mm	1500-2500 RPM
TSHW5.5-50-5	5.5x50mm	Tek 5	30mm	4.0 – 12.5mm	1500-2500 RPM
TSHW5.5-75-5	5.5x75mm	Tek 5	55mm	4.0 – 12.5mm	1500-2500 RPM
TSHW5.5-100-5	5.5x100mm	Tek 5	80mm	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.

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## Technical Data

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	1.2kN	1.6kN	2.0kN	3.0kN	3.9kN	4.5kN
5.5mm	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
5.5mm	Tek 5	6.5kN	7.8kN	10.0kN	11.5kN	12.0kN	13.5kN

Hardness Rating (Vickers scale)			Ultimate Mechanical Performance			Pullover Performance		
Diameter	Surface Hardness	Core Hardness	Diameter	Tensile Strength	Shear Strength	Diameter	In 0.6mm steel	In 1.2mm steel
4.8mm	630.0HV	445.0HV	4.8mm	9.5kN	6.2kN	4.8mm	2.8kN	3.6kN
5.5mm	615.5HV	440.0HV	5.5mm	15.9kN	10.3kN	5.5mm	3.0kN	4.4kN

# 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	<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".



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### Laboratory Contact Details

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