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EVO-DS-MF-SH-0232-A

PRODUCT DATASHEET
A4 STAINLESS STEEL MULTI-FIX SCREW (Washered)

Image is a real photograph of the actual product described
Illustrated image is representative of the full range.
Please refer to the corresponding drawing file for 1:1 scale replication per SKU

PRODUCT DETAILS

Purpose:	Fixing timber battens, trunking, track and general components into concrete, masonry and timber
Head style:	5/16" (8mm) hexagonal (male) socket w/ flange
Material Grade:	Thread and Head - AISI 316/ A4, Drilling Point - SAE C1018 / C1022 (Hardened)
Coating:	≥ 5µm Electroplated Zinc (Passivated)
Washer:	16mm ø bonded EPDM

GENERAL PHYSICAL CHARACTERISTICS

Product Code	Size	Drill Point
A4HH16-6.3-32-GP*	6.3mm x 32mm	Gash Point
A4HH16-6.3-45-GP	6.3mm x 45mm	Gash Point
A4HH16-6.3-57-GP	6.3mm x 57mm	Gash Point
A4HH16-6.3-70-GP*	6.3mm x 70mm	Gash Point
A4HH16-6.3-82-GP*	6.3mm x 82mm	Gash Point
A4HH16-6.3-100-GP *	6.3mm x 100mm	Gash Point
A4HH16-6.3-125-GP*	6.3mm x 125mm	Gash Point
A4HH16-6.3-140-GP*	6.3mm x 140mm	Gash Point
A4HH16-6.3-160-GP*	6.3mm x 160mm	Gash Point
A4HH16-6.3-180-GP*	6.3mm x 180mm	Gash Point
A4HH16-6.3-200-GP*	6.3mm x 200mm	Gash Point
A4HH16-6.3-225-GP*	6.3mm x 225mm	Gash Point

*Products Coming Soon

CHARACTERISTIC MECHCANICAL PROPERTIES

Property	Magnitude
Tensile Capacity, (F_{ult},R_k)	14,100 N
Shear Capacity, (V_{ult},R_k)	9,700 N
Torsional Capacity, (τ_{ult},R_k)	13,2 Nm

TECHNICAL DATA

Ultimate pull out loading from steel

Steel substrate (S275 JR mild steel)

Major diameter	Steel thickness	Steel thickness	Steel thickness
6.3mm	0.7mm	1.0mm	1.2mm
Force	1,000 N	1,400 N	2,000 N

Characteristic pull out loading from timber

Major diameter	Timber grade	Embedment depth	Load
6.3mm	C16	25.0mm	3,000 N
		35.0mm	3,700 N

Characteristic Withdrawal Resistance (Concrete and Masonry Substrates)

Embedment Depth (mm)	C35 Concrete (35N/mm2)	Aerated Concrete (7N/mm2)	Class B Engineering Brick (75 N/mm2)
25.0	3,900 N	2,700 N	4,200 N
35.0	5,800 N	3,900 N	5,700 N

Concrete and masonry setting information		
Substrate type	**Category**	**Data**
All	Nominal embedment depth	35.0mm
Non cracked concrete (>30N/mm2)	Minimum base material thickness Minimum screw spacing Minimum edge distance	100.0mm 55.0mm 55.0mm
Cracked concrete (>30N/mm2)	Minimum base thickness Minimum screw spacing Minimum edge distance	100.0mm 40.0mm 55.0mm

Influence of Compressive Strength on Withdrawal Resistance (Reduction Factors)									
Nominal Anchor Diameter	**Drill Hole Diameter**	**Embedment Depth (mm)**	**Compressive Strength – Cube (EN 1992)**						
			C20/25	**C25/30**	**C30/37**	**C35/45**	**C40/50**	**C45/55**	**≥C50/60**
6.3mm	5.15mm	25.0	0.6	1.0			1.2		1.3
		35.0	0.7	1.0	1.1	1.2	1.3	1.4	1.5

Influence of edge distance on loadings (reduction factor)										
Percentage of stated minimum	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**100%**
Reduction factor	N/A	N/A	N/A	N/A	N/A	0.75	0.80	0.85	0.90	1.00

NOTE: The results expressed in this document are determined from empirical testing. Specifiers, end-users and other third parties should make their own decision(s) on what safety factors to use relevant to their design(s)/application(s). This document is provided, strictly: without prejudice, without recourse, without liability, non-assumpsit, no assured value, errors and omissions excepted, subject to change without notice and all rights reserved.