TECHNICAL DATA SHEET

FP SA4D12





Description:
Ø5.5mm x Lmm, Self-drilling, Bi-metal stainless steel, Heavy Section

Fastener Material:
Austenitic Stainless Steel A4 (316 Grade)

Drill Point:
Hardened Carbon Steel

Drilling Capacity:
4.0mm – 12.0mm

Washer Material:
1.0mm Austenitic Stainless Steel A4 (316 Grade)

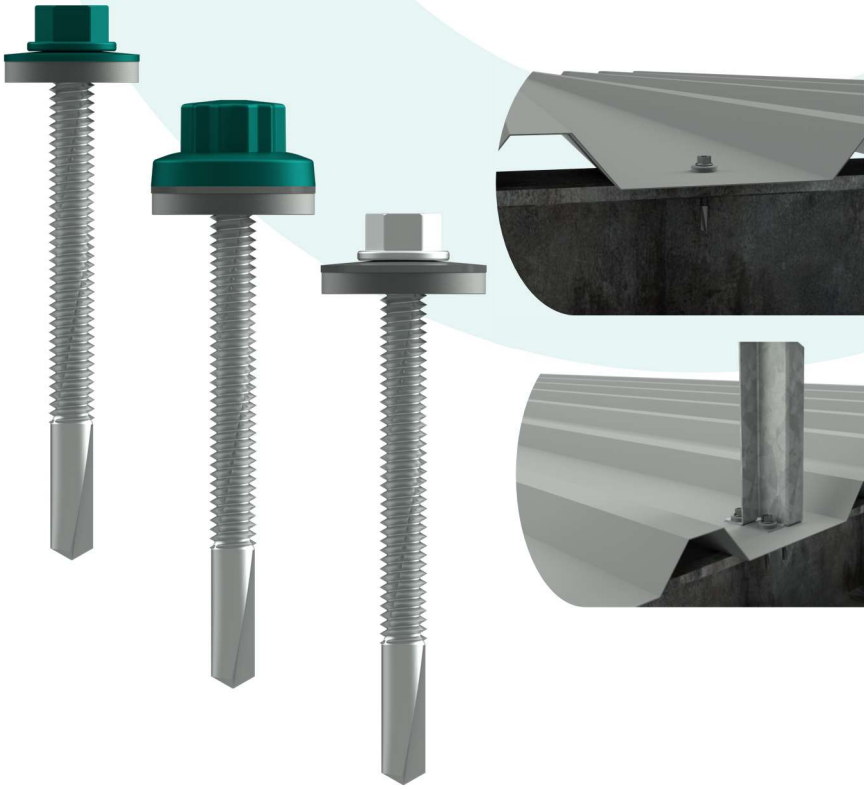
EPDM Thickness:
S16 – 2.5mm / S19 – 3.0mm / S29 – 3.0mm

EPDM Hardness:
50° Shore

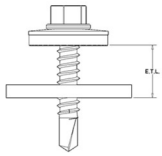
Head Styles & Drive:

SA4D12	8.0mm Hex with plain finish
SA4PCT12	8.0mm Hex with P.P.C. finish
SA4CT12	11.0mm Bi-hex nylon moulded finish

Application(s):
Single Skin / Liner sheet to heavy section rail
Spacer support system to heavy section rail



Code	Length	Effective Thread Length
SA4D1240	40mm	8mm
SA4D1260	60mm	28mm
SA4D1280	80mm	48mm



Effective Thread Length includes the maximum substrate thickness and ensures that only stainless threads are engaged.

Code Explanation

SA4D 12 40 S16

SA4D	=	FP A4 (316 Grade) Stainless Steel Fastener
12	=	Heavy Section
40	=	Fastener Length
S16	=	16mm Stainless Steel Bonded Washer

10A05 SA4CT 12 60 S19

10A05	=	Colour Reference
SA4CT	=	FP Bi-hex Nylon Moulded A4 (316 Grade) Stainless Steel Fastener
12	=	Heavy Section
150	=	Fastener Length
S19	=	19mm Stainless Steel Bonded Washer

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Everything on point

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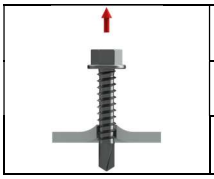
Durability:
These products may be used for indoor and outdoor applications with corrosion category class of C1 – C4 in accordance with Table B1 and Table B2 in EN 1993-1-3 and EN ISO 12944-2. Subject to approval by Fixing Point, they may also be used in applications with a corrosion category class C5 in accordance with these Tables.

Warranties up to 40-years on these products are available with prior project approval from Fixing Point.

Note: These products are not considered suitable for use in swimming pool buildings where they may be exposed to a chlorine-rich environment and the risk of condensation – consult Fixing Point

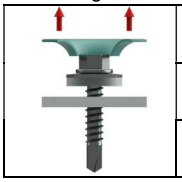
Technical Data:

Pull Out



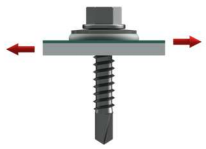
Material Thickness	4.0mm	4.0mm	5.0mm	6.0mm	8.0mm
Grade	S235JR	S275JR			
Pull Out (kN)	5.10	5.863	7.329	8.795	11.726

Pull Through



Washer	S16		S19	
Material Grade Thickness	Steel S220 0.5mm	Aluminium 170N/mm² 0.9mm	Steel S220 0.5mm	Aluminium 170N/mm² 0.9mm
Pull Through (kN)	1.73	1.82*	1.87	1.97*

Shear



Sheet - Material Grade Thickness	Steel S220 0.5mm		
Purlin / Rail - Material Grade Thickness	Steel S450 1.2mm	Steel S450 2.0mm	Steel S450 3.0mm
Shear (kN)	1.51	1.46	1.48



Ultimate Tensile (kN)
12.571



Ultimate Shear (kN)
7.41

All values shown are Characteristic value (NRk & VRk). The values have been derived from methodology as defined in the European Assessment Document (EAD) 33046-01-0602 or calculated according to the procedures in BS EN 1993-1-3:2024. To determine the Design Value (NRd & VRd) the material safety factor of 1.33 must be applied to the Characteristic Values – unless a greater safety factor is specified.

Values marked * are interpolated.

Installation Guidelines:
Self-drilling fasteners should always be installed with a dedicated variable speed screwgun, fitted with an appropriately adjusted depth locating nosepiece. This will ensure that the correct compression of the washer is achieved.

Under no circumstances should impact drivers be used to install self-drilling fasteners they are detrimental to the mechanical performance of the fastener.

Based upon industry standards the following washer diameters should be used for the following applications:



Roof Primary / Main-fix = 19mm
Rooflight Primary / Main-fix = 29mm
Wall Primary / Main-fix = 16mm
Roof, Rooflight & Wall Secondary / Stitcher = 16mm

As well as choosing the appropriate washer diameter, the EPDM thickness and shore hardness is equally as important. It is recommended that for composite panels a minimum 3.0mm EPDM with a Shore hardness of between 40-60 and for built-up systems a minimum EPDM thickness of 2.0mm and Shore hardness of 60-80.