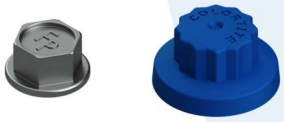
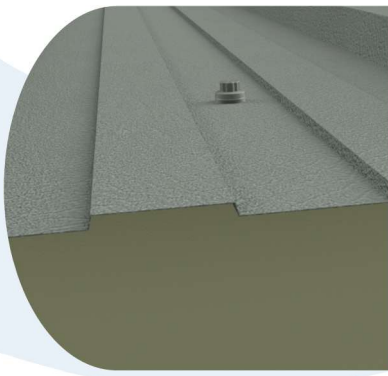
TECHNICAL DATA SHEET

FP SD12HT





Description:
Ø5.5/6.3mm x Lmm, Self-drilling, Bi-metal stainless steel, Composite Panel, Heavy Section

Fastener Material:
Austenitic Stainless Steel A2 (304 Grade)

Drill Point:
Hardened Carbon Steel

Drilling Capacity:
4.0mm – 12.0mm

Washer Material:
1.0mm Austenitic Stainless Steel A2 (304 Grade)

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

EPDM Hardness:
50° Shore

Head Styles & Drive:

SD12HT	8.0mm Hex with plain finish
SPCT12HT	8.0mm Hex with P.P.C. finish
SCT12HT	11.0mm Bi-hex nylon moulded finish

Application(s):
Composite panel to heavy section rail

Code	Length	Minimum (Panel)	Maximum (Incl. Purlin)
SD12HT075	75mm	25mm	43mm
SD12HT085	85mm	35mm	53mm
SD12HT100	100mm	35mm	68mm
SD12HT125	125mm	55mm	93mm

Code	Length	Minimum (Panel)	Maximum (Incl. Purlin)
SD12HT150	150mm	80mm	118mm
SD12HT195	195mm	145mm	163mm
SD12HT225	225mm	170mm	193mm
SD12HT300	300mm	220mm	268mm

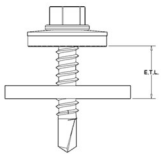
Code Explanation

SD 12 HT 100 S16

SD	=	FP Stainless Steel Fastener
12	=	Heavy Section
HT	=	High Thread / Composite Panel
100	=	Fastener Length
S16	=	16mm Stainless Steel Bonded Washer

10A05 SCT 12 HT 150 S19

10A05	=	Colour Reference
SCT	=	FP Bi-hex Nylon Moulded Stainless Steel Fastener
12	=	Heavy Section
HT	=	High Thread / Composite Panel
150	=	Fastener Length
S19	=	19mm Stainless Steel Bonded Washer



Maximum dimension includes the maximum substrate thickness and ensures that only stainless threads are engaged.

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Everything on point

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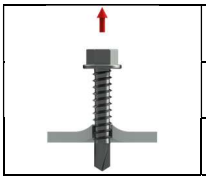
Durability:
These products may be used for indoor and outdoor applications with corrosion category class of C1, C2 or C3 in accordance with Table B1 and Table B2 in EN 1993-1-3 and EN ISO 12944-2. Subject to approval by Fixing Point, they may also be used in applications with a corrosion category class C4 or C5 in accordance with these Tables.

Warranties up to 25-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

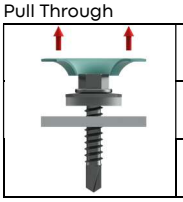
Technical Data:

Pull Out



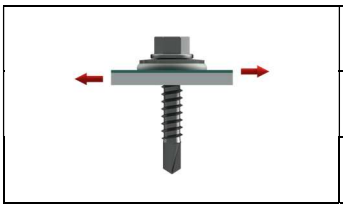
Material Thickness	4.0mm	4.0mm	5.0mm	6.0mm	8.0mm
Grade	S235JR	S275JR			
Pull Out (kN)	5.10	5.863	7.329	8.795	11.726

Pull Through

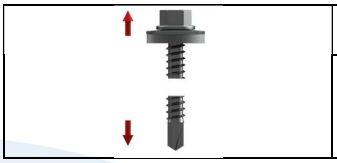


Washer	S16		S19	
Material Grade Thickness	Steel S220 0.5mm	Aluminium 170N/mm² 0.9mm	Steel S220 0.5mm	Aluminium 170N/mm² 0.9mm
Pull Through (kN)	1.98	1.97*	2.26	2.25*

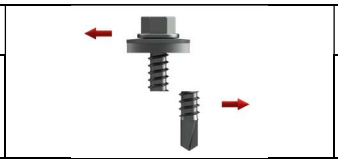
Shear



Sheet - Material Grade Thickness	Steel S220 0.4mm
Purlin / Rail - Material Grade Thickness	Steel S450 1.2mm
Shear (kN)	0.76



Ultimate Tensile (kN)
12.475



Ultimate Shear (kN)
8.19

All values shown are Characteristic value (NRk & VRk). The values have been derived from methodology as defined in the European Assessment Document (EAD) 33046-01-062 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.