

# TECHNICAL DATA SHEET

Fixing  
Point.

## FP SD12

**Description:**

Ø5.5mm x Lmm, Self-drilling, Bi-metal stainless steel,  
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:**

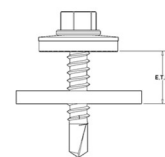
SD12                    8.0mm Hex with plain finish  
SPCT12                8.0mm Hex with P.P.C. finish  
SCT12                   11.0mm Bi-hex nylon moulded finish

**Application(s):**

Single Skin / Liner sheet to heavy section rail  
Spacer support system to heavy section rail



Code	Length	Effective Thread Length
SD1240	40mm	8mm
SD1260	60mm	28mm
SD1280	80mm	48mm



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

### Code Explanation

**SD 12 40 S16**

SD = FP Stainless Steel Fastener  
12 = Heavy Section  
40 = Fastener Length  
S16 = 16mm Stainless Steel Bonded Washer

**10A05 SCT 12 60 S19**

10A05 = Colour Reference  
SCT = FP Bi-hex Nylon Moulded 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, 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:

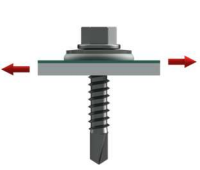
#### Pull Out


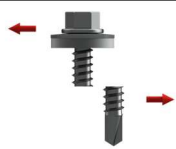
	Material Thickness	4.0mm	4.0mm	5.0mm	6.0mm	8.0mm
	Grade	S235JR	S275JR			
	Pull Out (kN)	5.10	5.863	7.329	8.795	11.726

#### Pull Through

	Washer	S16		S19	
	Material Grade Thickness	Steel S220 0.5mm	Aluminium 170N/mm <sup>2</sup> 0.9mm	Steel S220 0.5mm	Aluminium 170N/mm <sup>2</sup> 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)		Ultimate Shear (kN)
	12.571		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) 33046-01-062 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 / Sticher = 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.