

FASTENERS

When you select fasteners, you should consider the design life of the structure, because the fasteners and the cladding material should have similar life expectancies.

Why Fasteners Are So Important?

Fasteners are the smallest components in modern day construction, but probably the most overlooked, either at design or final inspection stage.

Structural failure occurs as a result of inferior quality, non compliant fasteners being used.

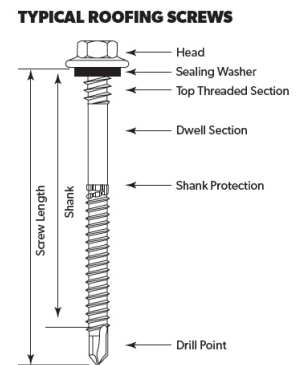
Class Comparison

Table 13: Environmental Impact

	Industrial	Marine
ISO Class 3 (Zn loss 0.7 - 2µm)	Mild and moderate	Mild
ISO Class 4 (Zn loss 2 - 4µm)	Severe	Severe

Table 13.1: Coating During Mechanical Process (Zinc & Tin)

	Coating Thickness	Coating Composition	Porosity
Class 3 Coating	25µm	20- 23% Sn Balance Zn	8
Class 4 Coating	45µm	20 – 23% Sn Balance Zn	8



Understanding Fasteners

Classification

Table 13.2: Diameters

	Nominal Diameters
#8	4.2mm
#10	4.8mm
#12	5.5mm
#14	6.3mm

Lengths

Dimension from under head to end of drill point(Hex head & wafer head)

Dimension from top of head to end of drill point(Countersunk head)

Identification

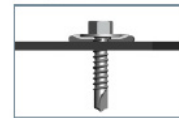
The format of the number code is:

12	-	14	x	50
M6	-	11	x	50
Screw gauge (Thread outside diameter)		Thread pitch (threads per inch)		Overall length of the screw measured from under the head to the tip of the drill point (mm)
M refers to metric size				

Proper Installation

Correct installation of Hex fixing with bonder washer

Over tightened



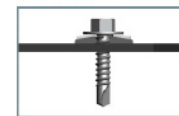
Causes reverse dishing and potential leakage under seal.

Under tightened



Likely to cause leakage under seal and around fixing.

Correctly tightened

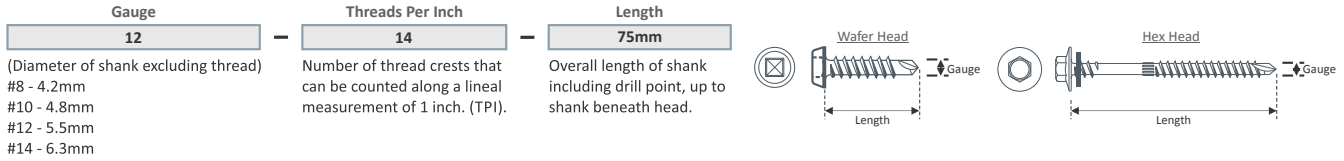


Tight against surface. Seal flows inward to seal minor fixing diameter and surface voids.

Fixing into metal - At least 3 threads visible

Fixing into timber - 26mm minimum purchase

How to read our fastener sizes



NOTES:

- All ALAF Fixtite Fasteners used for our pierced fixed profiles are Class 3 & 4 only, as this will provide optimal service life with Aluminium-Zinc coated steel.
- Different lengths/types of fasteners are available on request, including stainless steel.
- For optimal performance, the service life warranty of fasteners must match the service life warranty of the steel sheeting.
- Only Class 3 and 4 fasteners are suitable for use with Aluminium-Zinc coated steel (unpainted or pre-painted)
- Class 4 fasteners must be used within 1km of coast, river and in all corrosive environments.
- Aluminium roof sheeting: Use ONLY stainless steel fasteners.

METAL APPLICATIONS

TIMBER APPLICATIONS

<p>#12 x 22mm Metalfix wafer head square drive</p> <p>For concealed fix onto metal (Saflok 700) Class 3</p> <p>Code: FN0400</p>	<p>#12 x 45mm Timberfix wafer head square drive</p> <p>For concealed fix onto timber (Saflok 700) Class 3</p> <p>Code: FN0401</p>
<p>#12 x 65mm Metalfix hex head washer flange, EPDM seal</p> <p>For trapezoidal onto metal (Tekdek, Maxcover, Covermax, Versatile, Romantile) Class 4</p> <p>Code: FN0409</p>	<p>#12 x 70mm Timberfix hex head washer flange, EPDM seal</p> <p>For trapezoidal onto timber (Tekdek, Maxcover, Covermax, Versatile, Romantile) Class 4</p> <p>Code: FN0411</p>
<p>#12 x 38mm Metalfix hex head washer flange, EPDM seal</p> <p>For pierced fix onto metal (Classicorr Corrugated) Class 4</p> <p>Code: FN0407</p>	<p>#12 x 65mm Timberfix hex head washer flange, EPDM seal</p> <p>For pierced fix onto timber (Classicorr Corrugated) Class 4</p> <p>Code: FN0410</p>
<p>#14 x 22mm Metalfix stitching screw, hex washer flange, EPDM seal, tapered</p> <p>For stitching of sheeting & flashings, and use with S-5 clamps Class 4</p> <p>Code: FN0412</p>	
<p>#12 x 25mm Metalfix hex head washer flange, EPDM seal</p> <p>For side cladding onto metal Class 4</p> <p>Code: FN0413</p>	
<p>6 x 19mm Aluminium washer with EPDM seal</p> <p>For high wind conditions with pierced fix profiles</p> <p>Code: FN0414</p>	<p>6 x 25mm Aluminium washer with EPDM seal</p> <p>For high wind conditions with pierced fix profiles</p> <p>Code: FN0415</p>
	<p>Fixtite square drive</p> <p>For wafer head screws</p> <p>Code: FN0408</p>