Fastening Systems

Various fittings are used for the fixing of the sandwich panels and single layer trapezes to the carrying construction in façade (siding) and roof coatings, such as accessorized joints. The resistance, water proofing, appearance and etc. of the fittings should be preferred meticulously during the design phase.

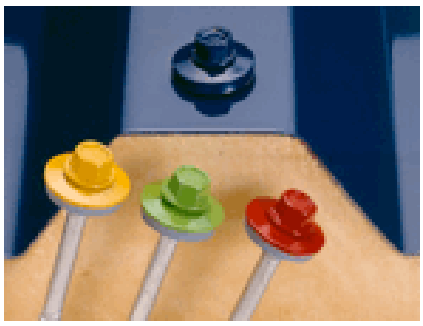
The situations required attention in Sandwich Panel fitting:

• The structural values of the bolts to be used should be considered in the selection of the fittings. The approved cutting and drawing resistance values in the calculations should be insured. Please contact the firm providing the fittings for the selection of drill tip bolts in accordance with the application for special applications. **(See Figure 1)**

• The sandwich panel external sheet will be subject to various deformations due to the temperature effects. The fitting used during this formation change should not lose its static properties and should resist against these effects elastically.

• The bolts of the sandwich panels are subject to corrosion from the ambient conditions. Therefore it is recommended to use the bolts with high organic coating providing corrosion resistance or those made of stainless steel material.

• The holes should be opened appropriately the excessively large or small holes may lead the bolts to lose their static features and the inappropriate installation. Please contact the firm providing the fittings for the appropriate diameters of the predrilled holes. **(See Figure 4)**



• The bolts produced of the faulty materials or too fast installation speed may lead the burning of the bolts. **(See Figure 2)**

• The excessive tightening or lose bolts during the installation will lead the leakage. The EPDM seal should be compacted in 25% ratio for the appropriate installation. The usage of the depth control apparatus will insure the appropriate installation. **(See Figure 4)**

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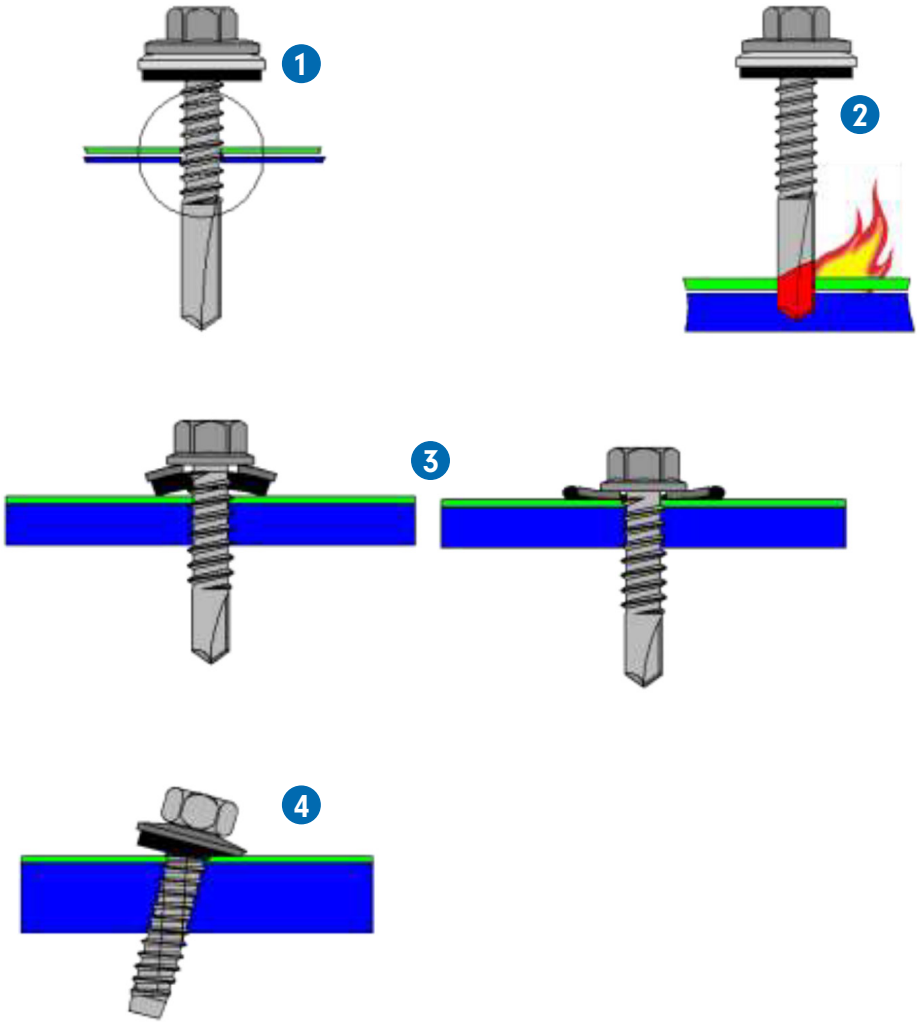


Fastening Tables of Sandwich Panel

Stainless Steel Screws

Thickness of sandwich panel construction can be mounted 1,5 mm - 5,0 mm

Ø (mm)	Ø (mm)	Screw Length (mm)	min-max / Thickness of Sandwich panel (mm)
5,5	6,3	67	35,0 - 40,0
5,5	6,3	87	48,0 - 60,0
5,5	6,3	107	58,0 - 80,0
5,5	6,3	127	72,0 - 100,0
5,5	6,3	147	92,0 - 120,0
5,5	6,3	167	112,0 - 140,0
5,5	6,3	197	140,0 - 170,0
5,5	6,3	237	170,0 - 210,0

Stainless Steel Screws
Thickness of sandwich panel construction can be mounted 3,0 mm - 12,0 mm

Ø (mm)	Ø (mm)	Screw Length (mm)	min-max/ Thickness of Sandwich panel (mm)
5,5	6,3	75	36,0 - 40,0
5,5	6,3	95	48,0 - 60,0
5,5	6,3	115	58,0 - 80,0
5,5	6,3	135	72,0 - 100,0
5,5	6,3	155	92,0 - 120,0
5,5	6,3	175	110,0 - 140,0
5,5	6,3	195	130,0 - 160,0
5,5	6,3	245	170,0 - 210,0

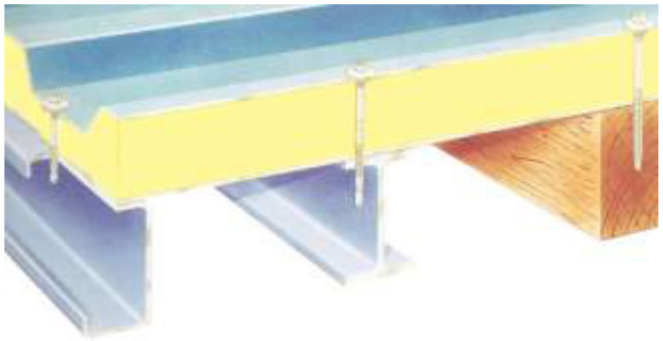
Organic Coated Carbon Steel Screws
Thickness of sandwich panel construction can be mounted 1,5 mm - 5,0 mm

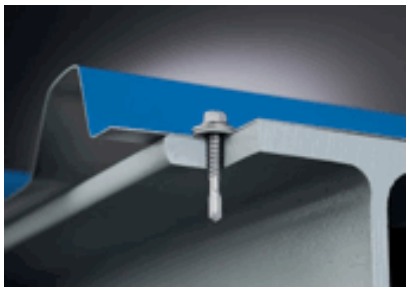
Ø (mm)	Ø (mm)	Screw Length (mm)	min-max/ Thickness of Sandwich panel (mm)
5,5	6,3	52	28,0 - 34,0
5,5	6,3	62	32,0 - 44,0
5,5	6,3	82	48,0 - 64,0
5,5	6,3	102	62,0 - 84,0
5,5	6,3	122	82,0 - 104,0
5,5	6,3	152	102,0 - 134,0
5,5	6,3	172	132,0 - 154,0
5,5	6,3	192	152,0 - 174,0

Organic Coated Carbon Steel Screws
Thickness of sandwich panel construction can be mounted 3,0 mm - 12,0 mm

Ø (mm)	Ø (mm)	Screw Length (mm)	min-max/ Thickness of Sandwich panel (mm)
5,5	6,3	80	41,0 - 50,0
5,5	6,3	95	48,0 - 64,0
5,5	6,3	105	56,0 - 75,0
5,5	6,3	125	66,0 - 94,0
5,5	6,3	155	90,0 - 125,0
5,5	6,3	195	120,0 - 165,0

• Source: EJOT





The situations to be considered in Trapeze Sheet Fittings

• In order to prevent any leakage in roof trapeze sheets, the installation should be conducted from the fixed-chute and niche together. The fixed chutes should be selected which is not damaged during installation in accordance with the trapeze form to be used when the chute is selected, and not losing its features for years. In the roof applications at which no fixed chute is used, the EPDM leakage proof seal should be at least 22 mm. **(see Figure 5)**.

• The fittings to be used in the roof trapeze installation should be installed to the construction vertically to the construction and with the EPDM sealed gaskets. For the façade trapezes; it should be installed with the fittings in the same properties from the inner sections of the niches.

• In the vertical overlapping of the trapezes; minimum 20 cm of the overlapping should be applied depending on the slope, and it should be fixed to the construction from each of the niches in the overlapping areas. In the roofs with lower slopes, polyethylene band application is required.

5