ECORAPID

THE UNIVERSAL FASTENING SYSTEM FOR SELF-SUPPORTING TRAPEZOIDAL SHEET METAL ROOFS AND SANDWICH ELEMENTS – NOW EVEN SIMPLER AND EASIER!

Self-supporting trapezoidal sheet metal roofs do not always allow fastening systems to be attached to the substructure. However, they often provide adequate load capacity for quick, easy direct fastening. Special sandwich elements usually offer enough stability in the upper shell. The solution is simple: EcoRapid – the unique material-minimized and quick fastening option.

- Statically optimized by lateral screw joints
- Quick to fasten
- Statics verification of the system
- Minimal material cost
- 25-year warranty*

EcoRapid is an easy fastening option for attaching modules on the long module side. When installing the system, pay attention to the clamp mounting’s positioning and the clamping points the module manufacturer has specified on the module.

INSTALLATION SEQUENCE

*in accordance with our warranty conditions
INSTALLATION INSTRUCTIONS

When installing EcoRapid, several points must be observed to ensure statically perfect fastening.

Fastening EcoRapid to the module’s field edge with two thin sheet metal screws

Fastening EcoRapid in the middle of the module field with one thin sheet metal screw
• EcoRapid must be screwed on in such a way that it pulls the module frame against the trapezoidal sheet metal to directly introduce pressure loads. Position the thin sheet metal screws on the lower bored edge and screw them in – observe the tightening torque through the contract pressure of the seal (a slight disk bulge must be maintained); the seal must rest circumferentially.

• The screws must never turn too far during installation.

• After installation, the screws must not be loosened again and screwed back into the same hole.

• Due to the building approval of the screws, a minimum sheet metal thickness of 0.5 mm is required for sheet steel and aluminum trapezoidal sheets.

• The roof must be able to take the additional load of the PV system.

• Attachment of the trapezoidal sheet metal must be suitable for absorbing wind suction forces.

• With sandwich elements, adequate adhesion of the layers under one another must be ensured.

• Installing EcoRapid on the trapezoidal sheet metal joint is not recommended, especially if the edge of the trapezoidal sheet metal is directly in the area of the EcoRapid screw joint. Pay special attention to the roof’s tightness.

• Make sure EcoRapid goes on evenly.

The mounting surface on the trapezoidal sheet metal must be at least 22 mm high.

Recommendation: Do not screw in the trapezoidal sheet metal’s joint area!

SEALING INSTRUCTIONS

• The screws included are provided with gaskets that prevent water from penetrating through the EcoRapid fastening holes.

• To ensure a seal between EcoRapid and the sheet metal roof, EPDM rubber pieces are included with EcoRapid on the internal side.

• It must be considered that in extreme weather (such as wet snow), water can rise even from underneath in the holes.
INSTALLATION SITUATION ON A SAMPLE MODULE FRAME

DURING INSTALLATION

INSTALLED
PERMISSIBLE MODULE FRAME MASS

A less than or equal to 16 mm
B more than or equal to 12 mm
C less than or equal to 35 mm
D more than or equal to 1.5 mm and smaller than or equal to 2.5 mm
E more than or equal to 13 mm

• Verification of EcoRapid’s fastening forces in a trapezoidal roof can be found in Schletter’s general system statics (pay attention to the separate data about roof edge areas!).

• Regarding the maximum snow load, it should be considered that the PV system’s surface weight must additionally be taken on by the roof covering (individual verification sometimes required).

NOTE

If a module has to be removed, the module row must be dismantled from the upper or lower module field edge. For this reason, we recommend not planning the module fields too large.

EcoRapid 113014-000
# TECHNICAL DATA

<table>
<thead>
<tr>
<th>Material</th>
<th>Fastening elements: 1.4301 stainless steel, screws: stainless steel, Seals: EPDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forms</td>
<td>Fits all common trapezoidal sheet metal versions and sandwich elements (50°–76°)</td>
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<tr>
<td>Planning guide</td>
<td>Configuration and static measurement using the Schletter Configurator.</td>
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<tr>
<td>Statics</td>
<td>Statics calculation according to the current country-specific standards (in Germany EN 1991, EC1). Statics appendices for dimensioning the number of required fastening points, based on static calculation. Please make sure you observe the statics information in each case! Verification of the roof's holding force on the substructure is not contained in the general statics appendices.</td>
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For more information, see [www.schletter.de](http://www.schletter.de)