

Short Form Classification Report No. 21708F

PRODUCT

Esdec FlatFix Wave Series with Risen Sieger Series RSM PV modules

SPONSOR

Esdec Solar Group

PRODUCT DETAILS

PV module: Risen Sieger Series RSM PV modules	PV mounting system: Esdec FlatFix Wave Series	Support mat: Regupol resist solar FH AK
A bifacial photovoltaic module with 120 PV cells. There is a silicium glass facing and backing. The frame itself is aluminium. The panels have an inclination of 10° respective to the roofing system.	A Magnelis coated steel mounting frame to incorporate the PV modules. They ensure that the PV-models have an inclination of 10° respective to the roofing system. The frame is loosely placed on top of the supporting mats. There were no wind deflectors.	One-sided aluminium laminated polyurethane (PUR)-bound rubber granulate.
1691 mm x 998 mm x 30 mm	2365 mm x 274 mm x 153,9 mm (per rail)	8,0 mm
21,5 kg	4,45 kg (per rail)	6000 g/m ²
Clamped onto the PV mounting system	Loose but ballasted system on roofing	Loose laid

FIELD OF APPLICATION

- Range of pitches: ≤ 10°
- Range of substrates: valid for any substrate
- Extended field of application: see annex A

CLASSIFICATION

Broof(T3)

STANDARDS

Test standard: CEN/TS 1187:2012

Classification standard: EN 13501-5:2016

SIGNED

APPROVED

For and on behalf of WFRGENT nv

This short form classification report has been drafted according to EGOLF agreement EGA 039-2021 "Application note: clause 5.10 [5.10/1] – Types of test reports used in fire testing". Whilst the test data and classification provided within this short form report was obtained in a test conducted fully in accordance with the standards CEN/TS 1187:2012, EN13501-5:2016, the presentation of the results in this short form report may not satisfy the requirements of those standards and EN ISO/IEC 17025:2017. The presentation of the results in this manner is made by agreement with the sponsor and use of the information herein for product assessment, approval or certification purposes will be restricted.

The full classification report No. **21708E** is available at **Esdec Solar Group**.

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Annex A: Extended field of application

➤ Range of layer 0: PV modules: Risen Sieger Series RSM PV modules

Material:	A bifacial photovoltaic module with 120 PV cells. There is a silicium glass facing and backing. The frame itself is aluminium. The panels have an inclination of 10° respective to the roofing system.
Thickness:	30 mm
Dimensions:	1691 mm x 998 mm
Weight:	21,5 kg
Fixing method:	Clamped onto the PV mounting module.
Orientation:	East/west or North/south, both at an inclination of 10°

➤ Range of layer 1: PV mounting system: Esdec FlatFix Wave Series

Material:	A Magnelis coated steel mounting frame to incorporate the PV modules. They ensure that the PV-models have an inclination of 10° respective to the roofing system. The frame is loosely placed on top of the supporting mats. There were no wind deflectors.
Length:	2365 mm, per rail
Width:	153,9 mm, per rail
Height:	274 mm, per rail
Weight:	4,45 kg
Fixing method:	Loose but ballasted system on roofing

➤ Range of layer 2: Support mat: Regupol resist solar FH AK

Material:	One-sided aluminium laminated polyurethane (PUR)-bound rubber granulate.
Thickness:	8,0 mm
Dimensions:	310 mm x 260 mm
Surface weight	6000 g/m ²
Fixing method:	Loose laid

➤ Range of layer 3: Roof Covering: Derbicolor FR

Material:	APP-bituminous cap sheet with a glass fleece - polyester reinforcement and a white mineral finish on top.
Thickness:	4,0 mm or less bitumen compound
Reinforcement	Glass fleece – polyester 170 g/m ² <ul style="list-style-type: none"> • Less polyester allowed • More glass fleece allowed
Mineral finish	Slates 5850 g/m ² or more
Surface weight	6000 g/m ² or less bitumen compound
Fixing method:	Torched

➤ Range of layer 4: Insulation: Mineral wool, perlite, cellular glass

Thickness:	30 mm or more
Density:	110 kg/m ³ or more
Thermal conductivity:	0,035 W/mK or more
Fixing method:	Mechanically fixed

➤ Range of layer 5: Supporting deck

Range of supporting deck:	Any type of supporting deck
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Application on existing roofs ("renovation"):

The result obtained for this test specimen is valid for systems in which the substrate has already been sealed, provided that an additional insulation product is installed, such panels being in accordance with the following:

1. Insulation product consisting of factory-fitted bituminous coated or uncoated boards made from mineral wool, perlite, cellular glass, approved for this purpose and having:

- A thickness of at least 30 mm
- A thermal conductivity λ of at least 0.035 W/mK
- A density ρ of at least 110 kg/m³.

2. Systems in which the substrate has already been sealed itself, with no new insulation product added, provided that:

That old system is itself BROOF(t3) class or deemed to be BROOF(t3)

The substrate is trapezoidal profile steel with insulation material, or concrete (masonry) or lightweight concrete, with or without insulation boards

3. The separating layer (if added) is glass mat or polyester geotextile with a mass per unit area of 300 g or less