

## Certificate of Approval

Certificate Number: MCS IK0197

Issue: 06

### Renusol Europe GmbH

Piccoloministr. 2  
Cologne  
51063  
Germany



having complied with the requirements of the following:

#### MCS 010: Issue 1.5

Generic Factory Production Control (FPC) Requirements  
and

#### MCS 012: Issue 2.2

Product Certification Scheme Requirements: Pitched Roof  
Installation Kits

is authorised to use the BRE Global Certification Mark and the MCS Certification Mark in association with the following products:

### Products

Please see Appendix for details

This certificate and appendix is maintained and held in force through periodic review and verification

The products listed in this certificate and appendix are certified through the agreement between BRE Global Ltd. and TÜV Rheinland Energy GmbH



Signed for BRE Global Ltd.

Laura Critien  
MCS Operations Manager

07 March 2018  
Date of Issue

23 June 2014  
Date of First Issue



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## Appendix to Certificate No: MCS IK0197 Renusol Europe GmbH

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### Products

Model	Description	Reference No.
InterSole SE**(when installed with CentroSolar S xxxP60 Professional modules, xxx =200 - 265W)	Roof Installation Kit (Roof Integrated)	MCS IK0197/01
<i>Technical information for InterSole SE using Anker roof fixing:</i>  Roof substrate: Minimum roof Pitch: Maximum design wind uplift: Value of partial safety factor: Fire safety performance:		Timber battens* 20° 2954.5Pa (when used on 2 modules with a total of 6 fixings) 1.1 EXT.S.AA
<i>Components:</i> InterSole anchor (400015) Wood screw InterSole plate (500007) Mid clamp (400019) End clamp (410000) Flashing bottom (700002) Flashing side (700001) Flashing top (700003) Mounting clip Mounting bracket Universal middle clamp (420082) Universal middle clamp (blk) (420082-BE) Universal end clamp (420081) Universal end clamp (blk) (420081-BE) RS1 – ultimate clamp (420080) RS1 – ultimate clamp (blk) (420080-BE) Sealing strip Sealing tape Glue Mounting rail (400018, 460018, 400024)		

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## Appendix to Certificate No: MCS IK0197 Renusol Europe GmbH

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Model	Description	Reference No.
MetaSole / MetaSole+	Roof Installation Kit (Above Roof)	MCS IK0197/02
<p><i>Technical Information for MetaSole using Klemfuß roof fixing:</i></p> <p>Roof substrate: Minimum Roof pitch: Maximum design wind uplift: Value of partial safety factor:</p>		
<p>Trapezoidal sheet on 800 x 100 mm timber battens* 10° 1994.4 Pa (when used on 2 modules with a total of 6 fixings) 1.25</p>		
<p><i>Components:</i></p> <ul style="list-style-type: none"> <li>Clamp foot (400402)</li> <li>Clamp foot portrait (420420, 420421) (Design uplift resistance 2600 Pa)</li> <li>Mid clamp (400019)</li> <li>End clamp (410000)</li> <li>Screw JT3-X2</li> <li>Screw SDK2-S-377</li> <li>Screw RP-TS-LK 6,0x25</li> <li>Universal middle clamp (420082)</li> <li>Universal middle clamp (blk) (420082-BE)</li> <li>Universal end clamp (420081)</li> <li>Universal end clamp (blk) (420081-BE)</li> <li>RS1 – ultimate clamp (420080)</li> <li>RS1 – ultimate clamp (blk) (420080-BE)</li> <li>Adapter corrugated sheet (420401)</li> </ul>		

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## Appendix to Certificate No: MCS IK0197 Renusol Europe GmbH

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Model	Description	Reference No.
VarioSole SE / VarioSole+ (with Aluminium Roof Hooks)	Roof Installation Kit (Above Roof)	MCS IK0197/03
<i>Technical information for VarioSole SE using Dachhaken Aluminium roof hooks:</i> Roof substrate: Minimum roof pitch: Maximum design wind uplift: Value of partial safety factor:		Timber rafters* 20° 3097.7 Pa (when used on 2 modules with a total of 6 fixings) 1.1
<i>Components:</i> Mid clamp (400019) End clamp (410000) Mushroom head screw Rail connector (400532) Cross rail connector (420083) Universal end clamp (420081) Universal end clamp (blk) (420081-BE) Roof hook adjustable (420161) Mounting rail (400502, 400505, 400506, 400509 + black variants) Mounting rail 41mm (400511, 400512, 400513, 400519 + black) Universal middle clamp (420082) Universal middle clamp (blk) (420082-BE) RS1 – ultimate clamp (420080) RS1 – ultimate clamp (blk) (420080-BE)		

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## Appendix to Certificate No: MCS IK0197 Renusol Europe GmbH

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Model	Description	Reference No.
VarioSole SE / VarioSole+ (with Hanger Bolts)	Roof Installation Kit (Above Roof)	MCS IK0197/04
<i>Technical information for VarioSole SE using Solarbefestiger hanger bolts on metal sheets:</i>  Roof substrate: Minimum roof pitch: Maximum design wind uplift: Value of partial safety factor:		Metal sheet on timber rafters* 10° 3097.7 Pa (when used on 2 modules with a total of 6 fixings) 1.1
<i>Components:</i> Solar fastener bracket (900181 - 192) Hanger bolt (R860006, -7, -17, R920002, -008, -136, -137, -159) Mid clamp (400019) End clamp (410000) EPDM washer Washer trapezoidal metal sheet Washer corrugated metal sheet Rail connector (400532) Cross rail connector (420083) Mounting rail (400502, 400505, 400506, 400509 + black variants) Mounting rail 41mm (400511, 400512, 400513, 400519 + black) Universal middle clamp (420082) Universal middle clamp (blk) (420082-BE) Universal end clamp (420081) Universal end clamp (blk) (420081-BE) RS1 – ultimate clamp (420080) RS1 – ultimate clamp (blk) (420080-BE)		

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Model	Description	Reference No.
VarioSole SE / VarioSole+ (with Steel Roof Hooks)	Roof Installation Kit (Above Roof)	MCS IK0197/05
<p><i>Technical information for VarioSole SE using Dachhaken Biber &amp; Schiefer roof hooks (without sealing kit**):</i></p> <p>Roof substrate: Timber rafters*            Minimum roof pitch: 20°            Maximum design wind uplift: 2000 Pa (when used on 2 modules with a total of 6 fixings)            Value of partial safety factor: 1.0</p> <p><i>Components:</i></p> <ul style="list-style-type: none"> <li>Roof hook UK pantile (420180)</li> <li>Roof hook plain tiles, slates (420181)</li> <li>Roof hook UK Flexible (420182)</li> <li>Roof hook UK Flexible 90° (420183)</li> <li>Roof hook UK Plain tiles/slates (420181)</li> <li>Roof hook stainless steel (420150)</li> <li>Roof hook plain tiles (420153)</li> <li>Roof hook slate tiles (420155)</li> <li>Mid clamp (400019)</li> <li>End clamp (410000)</li> <li>Mounting rail (400502, 400505, 400506, 400509 + black variants)</li> <li>Mounting rail 41mm (400511, 400512, 400513, 400519 + black)</li> <li>Universal middle clamp (420082)</li> <li>Universal middle clamp (blk) (420082-BE)</li> <li>Universal end clamp (420081)</li> <li>Universal end clamp (blk) (420081-BE)</li> <li>RS1 – ultimate clamp (420080)</li> <li>RS1 – ultimate clamp (blk) (420080-BE)</li> <li>Rail connector</li> <li>Cross rail connector (42008)</li> <li>Mushroom head screw</li> </ul>		

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Model	Description	Reference No.
VarioSole+ (with Standing Seam Clamps)	Roof Installation Kit (Above Roof)	MCS IK0197/06
<p><i>Technical information for VarioSole+ using S5 Standing Seam Clamps.</i></p> <p>Roof substrate: Standing seam metal sheet (on 100x40mm battens and 80x100mm rafters)</p> <p>Maximum design wind uplift: 3181.8 Pa (when used on 2 modules with a total of 6 fixings)</p> <p>Value of partial safety factor: 1.1</p> <p><i>Components:</i></p> <ul style="list-style-type: none"> <li>Hexagon bolt (900025)</li> <li>M8 Nut (900001)</li> <li>Mounting rail 41mm (40051X +Black Variants)</li> <li>Mounting rail 50mm (40050X +Black Variants)</li> <li>Universal middle clamp (420082)</li> <li>Universal middle clamp (blk) (420082-BE)</li> <li>Universal end clamp (420081)</li> <li>Universal end clamp (blk) (420081-BE)</li> <li>RS1 – ultimate clamp (420080)</li> <li>RS1 – ultimate clamp (blk) (420080-BE)</li> <li>M10 Bracket (420014)</li> <li>S5-E-Mini (400254)</li> <li>S5-Z-Mini (400255)</li> <li>S5-S-Mini (400259)</li> <li>S5-R-465-Mini (400563)</li> <li>S5-R-465 (400252)</li> </ul>		

\* Rafter and batten size should be adequate to resist applied wind load and comply with current building regulations of the country in which installed.

\*\* Certificated to MCS 012 only when used **without** plastic sealing surround.

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