Kalzip®

Kalzip® solar systems

Integrated PV roofing solutions for creative solar architecture

When it comes to the production of renewable energy, photovoltaic systems are a key technology. The sophisticated combination of a Kalzip® system with solar technology offers a brand new generation of roof-integrated PV new and retrofit systems, using the first fully certified IEC glassless, semi-flexible, ultra-light module based on silicon solar cells.

Kalzip® AluPlusSolar and SolarClad: Bring style and function to the roof

Revolutionary solar modules are providing Kalzip® AluPlusSolar and Kalzip® SolarClad standing seam systems with both new and retrofit options. These innovative roof-integrated solar solutions are equipped with a proprietary fibre-reinforced plastic core and an advanced EVA film on the front and reverse side of the panel delivering a solution that provides stability, robust design, flexibility, quality and durability all in one module.

Kalzip® AluPlusSolar is available on polyester coated aluminium sheets and is available to order in any RAL colour and as the sheets can be supplied in straight, convex and concave forms, a wide range of roof forms are possible allowing architects, planners and builders, to capture solar energy effectively and efficiently, without having to make any creative or aesthetic compromises.

Additionally, the internal connection system of the new Kalzip® AluPlusSolar solution is both simple and clever. The connectors and cables are fully concealed and protected - safe from rain, snow, ice, UV rays - a detail which ensures that the roof is completely clear of visible cables or ports.

Kalzip® SolarClad is offered as a retrofit solution for standing seam. Laminated directly onto polyester coated aluminum panels, this option follows the exact contours of the roof or elevation to provide a highly functional yet aesthetic appearance, and combined with the internationally approved Kalzip fixing clamps this retrofit solution is applied without any penetrations to the existing roof skin. Kalzip® SolarClad has the capability to transform existing roof structures into solar power plants.

ELECTRICAL PROPERTIES

Designation	Power (Wp)	Isc (A)	Voc (V)	Imp (A)	Vmp (V)
12x2	110	9,15	16,01	8,63	13,04

TECHNICAL SPECIFICATIONS

Solar cells	24 5BB Mono crystalline solar cells
Solar features	156 mm x 156 mm
Front	Polymer film with high transmittance
Upper embedded material	Proprietary fiber reinforced plastic
Cell embedding	EVA
Back	Weatherproof back
Junction box	TÜV certified (IP67) with 1 bypass diode (12A)
Output cable	2 x 4 mm², 500 mm cable
Connector	MC4 compatible connectors
Dimensions (L x W x H)	2035 mm x 355 mm x 2 mm
Weight laminate	2.5 kg

HOHE ZUVERLÄSSIGKEIT

25 year performance guarantee according to our terms
10 year product guarantee
Maximum system voltage: 1000V
Maximum current: 20A
All data at STC / STC (1000 W / m², 25 C)

CERTIFICATION

IEC 61215:2005	IEC 61730-1&2 : 2007

TEMPERATURE PROPERTIES

Operating temperature range	-40 bis 85 °C
Ambient temperature range	-45 bis 45 °C
Temperature coefficient of Pmpp	-0,393 %/°C
Temperature coefficient of Voc	-0,310 %/°C
Temperature coefficient of Isc	0,051 %/°C

FIRE PROTECTION CLASS

EN 13501-5:2007 Euroclass $B_{(ROOF)}$ t1	

Power brought to the point:

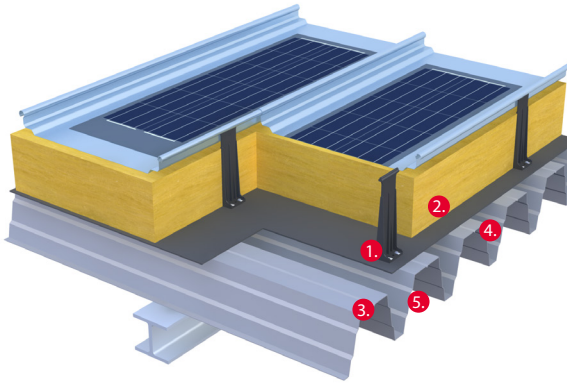
Numbers say more than a thousand words

KALZIP® ALUPLUSSOLAR - SYSTEM BENEFITS

Aesthetic solution	An integrated PV roof module complete with internal outlets
Solar system components	With commercial DC connector to interconnect boxes and conventional invertors
Colour	All RAL colours in 25 micron polyester coated
Profile type	Available in Kalzip AF 65/537
Gauge	1.0mm
Radius	Convex 13m
Weight	Profile panel including solar modules approximately 7kg / m2
Roof constructions	Exclusively Kalzip systems with soft, compressible thermal insulation in variable insulation thicknesses
Roof shapes	For almost all roof shapes and cold and warm roof constructions
Maintenance	Self-cleaning surface providing minimum maintenance
Efficiency	Ideal for use in European regions with high diffuse light fraction

Powered by

DAS Energy

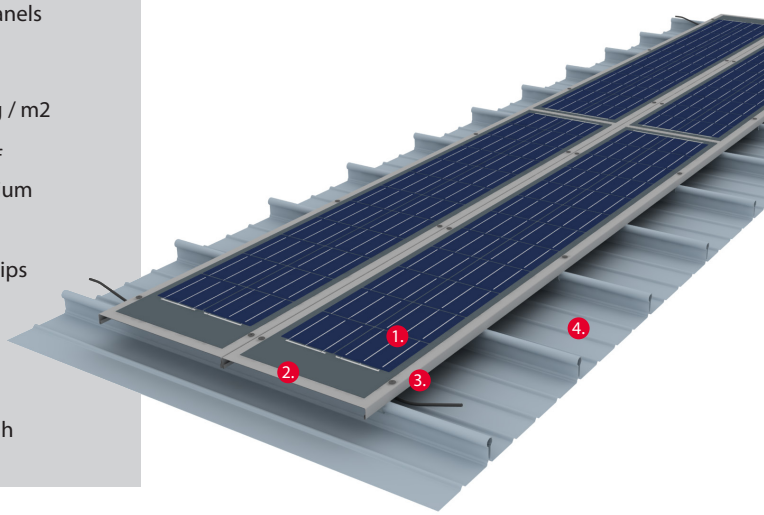


Kalzip AluPlusSolar
1. PV laminate
2. Kalzip AF 65/537 aluminium profiled sheets
3. Kalzip composite E Clip
4. Insulation (compressible)
5. Kalzip vapour control layer

KALZIP® SOLARCLAD - SYSTEM BENEFITS

Aesthetic solution	On polyester coated aluminium panels laminated PV retrofit solution for all Kalzip overall widths
Solar system components	With commercial DC connection boxes to interconnect and and conventional invertors
Colour	25 micron polyester coated aluminium panels
Perforated metal ceiling	1.0mm
Weight	Including solar panels approximately 7 kg / m2
Laying direction	Roof parallel vertically, parallel to the roof or horizontally elevated on Kalzip aluminium profiled sheets
Fixing / mounting	On officially approved Kalzip mounting clips (see installation manual)
Maintenance	Self-cleaning surface providing minimum maintenance
Efficiency	Ideal for use in European regions with high diffuse light fraction

Kalzip SolarClad
1. PV laminate
2. Kalzip polyester coated aluminium panels with back socket and plug connections
3. Kalzip fixing clamp type FA
4. Kalzip standing seam panel



www.kalzip.com

Kalzip is a company of the Donges Group

www.donges-group.com

Kalzip GmbH
August-Horch-Str. 20-22
D-56070 Koblenz
Postfach 10 03 16
D-56033 Koblenz
T +49 (0) 2 61 - 98 34-0
F +49 (0) 2 61 - 98 34-100
E germany@kalzip.com

Englisch 1219