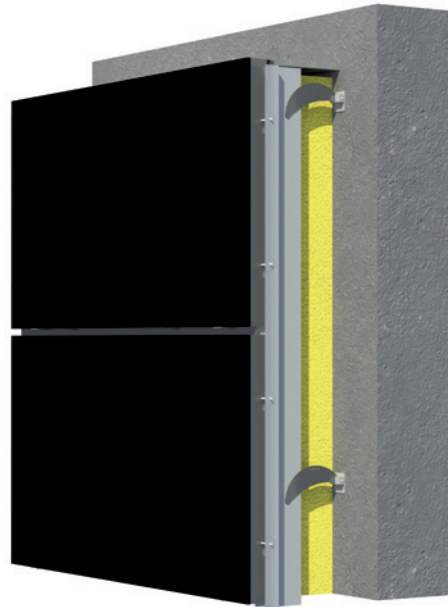


THE HIGH QUALITY FACADE SOLUTION



- | | |
|---------------------------|--|
| Elegant appearance | <ul style="list-style-type: none"> · Sleek black appearance · Homogenous glass facade without frame elements · Enhances buildings by furnishing them with representative glass facades |
| High power yields | <ul style="list-style-type: none"> · High-yield, rear-ventilated facade · Proven curtain wall system · Sufficient rear ventilation of the modules · Optimal thermal insulation |
| Easy installation | <ul style="list-style-type: none"> · Innovative adhesive technology without clamping brackets or cleats · Simple fixing system with a high load-bearing capacity · Few fixing points |

High quality, innovative solar technology paired with sleek, adaptable design

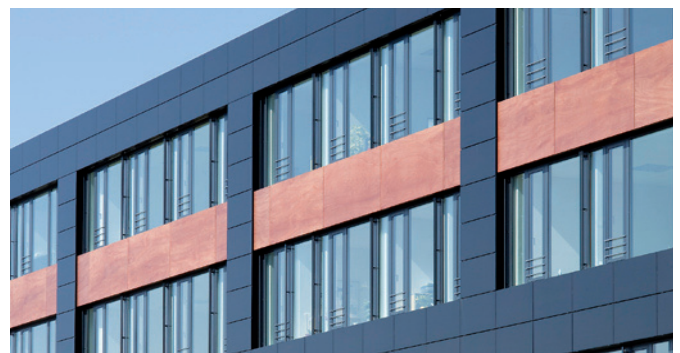
The frameless facade solution from Soltecture consists of the black Linion L laminate module and the proven facade cassette. The two are combined to form a single element, enabling quick and easy installation. The system's innovative adhesive technology eliminates intrusive clamping brackets and cleats.

The solar facade system forms an "envelope" for the building, enabling the system to discharge water in a controlled manner, protecting the structural elements from invasive moisture. The rear ventilation system prevents interstitial condensation from forming and cools the PV modules, as well.

With its sleek black design and 'pinstripe look', the frameless facade solution offers a unique combination of the latest solar power technology with distinctive architectural design.

Soltecture's facade solution is particularly suitable for:

- Design-oriented integration in facades or full-surface solutions
- Energy-efficient retro-fit of existing buildings
- Industrial and commercial buildings, single-family homes and apartment buildings
- Public and civic structures, business office and administrative buildings, commercial and retail centers



CORIUM Premium

FACADE SOLUTION

Design services

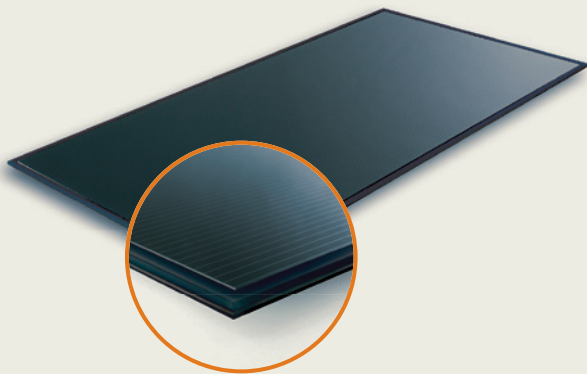
When designing facade elements, Soltecture recommends employing the finest architects and structural designers. Soltecture can provide clients with assistance in selecting the appropriate partners.

As an integral part of facades, solar cassettes are subject to the applicable building regulations. This means that a structural engineer must structurally verify the overall structure.

In Germany, solar technology construction projects requires individual project approval. Soltecture provides guidance and support in this process with its network of contacts, including expert appraisers and building authorities.

The basic requirements for facade glazing are met through deploying laminated glass with EVA film in combination with structural glazing adhesives that have earned European technical approval (ETA).

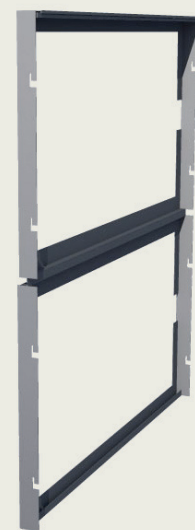
System components: Soltecture Corium facade solution



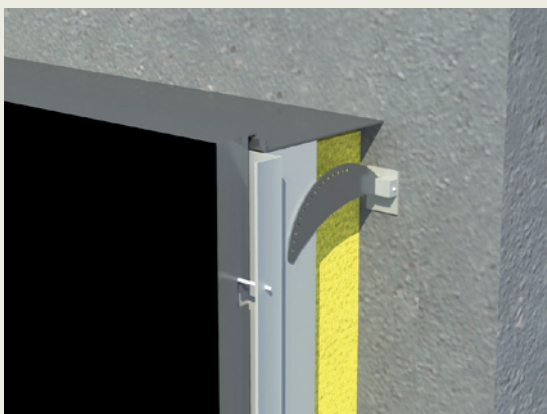
Black laminate module



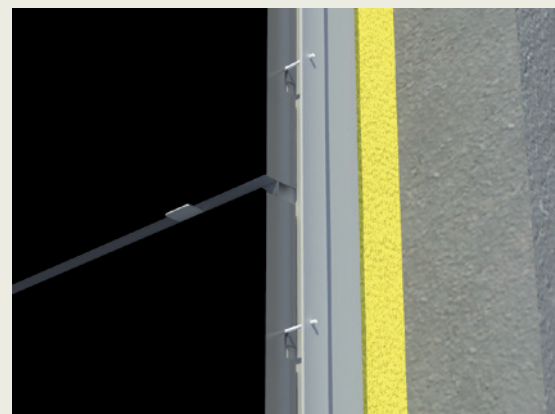
Facade cassette, front



Facade cassette, rear



Upper rim



Simple insertion system

Scope of delivery: Soltecture Corium facade solution

- Cassette (including black Linion I module) for the surface area and upper rim
- Facade brackets
- Facade substructure (aluminium supporting profile)

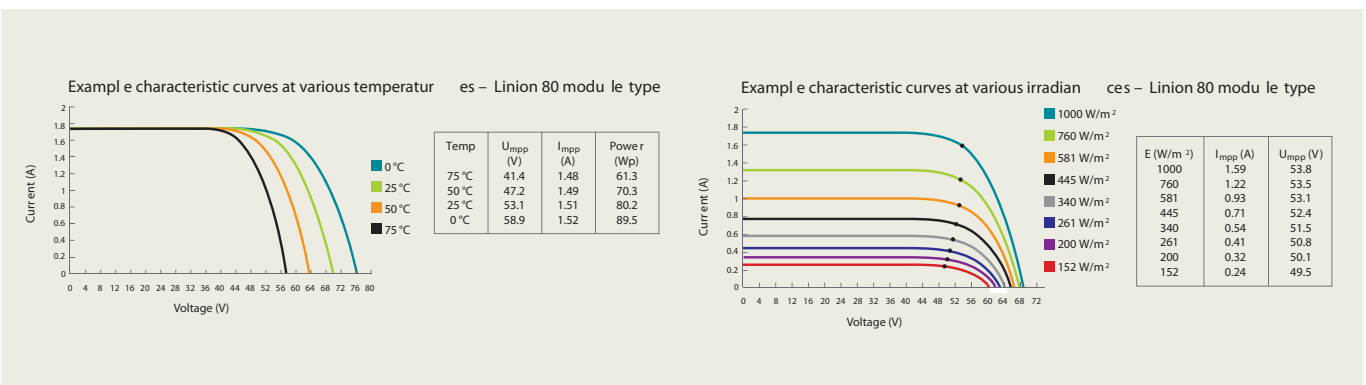
Technical data	CORIUM 85 (Premium)	CORIUM 90 (Premium)
Electrical characteristics at 1000 W/m²; 25 °C; AM1.5		
Rated power P _{max}	85.0 W	90.0 W
Tolerance (P _{max})	+5/-0 W	+5/-0 W
Module efficiency	10.5%	11.1%
Rated voltage* U _{mpp}	53.8 V	55.4 V
Rated current* I _{mpp}	1.58 A	1.63 A
Open circuit voltage* U _{oc}	68.5 V	70.4 V
Short circuit current* I _{sc}	1.74 A	1.79 A
Maximum system voltage	IEC 61730	1000 V
	UL 1703	600 V
Reverse current rating	3.5 A	3.5 A
Max. no. of modules connected in series per string (+10% tolerance; 1000 V [IEC]; -10°C)	11	11
Maximum no. of modules in parallel**	Individual strings connected to a blocking diode in (+) and 3 A fuse in (-).	

Electrical characteristics at 800 W/m²; NOCT; AM1.5		
Power* P _{max}	61.1 W	65.0 W
Voltage* U _{mpp}	48.5 V	50.0 V
Current* I _{mpp}	1.26 A	1.30 A
Open circuit voltage* U _{oc}	61.3 V	63.1 V
Short circuit current* I _{sc}	1.39 A	1.43 A

Electrical characteristics at 200 W/m²; 25 °C; AM1.5		
Maximum absolute reduction of efficiency	1.0%	1.0%

Thermal behavior		
Working temperature (NOCT)	49 °C	
Power temperature coefficient T _c (P _{max})	-0.50%/K	
Voltage temperature coefficient T _c (U _{oc})	-0.35%/K	
Current temperature coefficient T _c (I _{sc})	+0.01%/K	

Operating conditions		
Temperature range	-40 °C to +85 °C	
Maximum mechanical load***	IEC 61730	2400 Pa; 145 kg/m ²
	UL 1703	1600 Pa; 33 lb/ft ²
Maximum torsion	1.2°	
IP code (to DIN EN 60529)	IP65	
Protection class (to DIN EN 61140)	II	
Application class (to IEC 61730)	A	
Fire rating (to IEC 61730)	C	



Notes
* Tolerance of the electrical parameters ± 10%
** Limited: See explanation in the Electrical Configuration section in the installation instructions.
*** Observe installation instructions.
www.fvgenergy.com

CORIUM Premium FACADE SOLUTION

Technical data

Facade cassette dimensions

Standard cassette dimensions	1250 mm x 650 mm
Grid dimensions for the entire structure	1270 mm x 670 mm
Structural depth of the cassette	Approx. 60 mm
Weight	15 kg

Load-bearing capacity of the facade cassette

Cassette	$R_d = 1.5 \text{ kN/ m}^2$
Substructure****	Variable to $R_d = 1.5 \text{ kN/ m}^2$

Additional data

Recommended string fuse	3 A (e.g. Socomec 60PV0003)
Included bypass diode	1 x Diotec BY550-1000
Connection cable	(+) 1000 mm; (-) 1000 mm
Plug connector	Y-SOL 4
Cell type	CIGSe thin-film
Cover glass	3 mm tempered safety glass
Rear glass	3 mm float glass
Encapsulation	EVA

Certificates and warranties (for Linion L modules)

TÜV certificates:
IEC 61646, IEC 61730
CE marking



- Qualified, IEC EN 61646
- Safety tested, IEC 61730
- Periodic Inspection



Independent product warranty 10 years (for Linion L modules)*****

Independent output warranty 25 years (for Linion L modules)*****

Notes

**** Crucial is the spacing between the facade brackets and the load-bearing capacity of the anchors in the existing structure.
***** See Soltecture GmbH's independent manufacturer warranty for Linion PV modules (last revised October 2011).
The modules are not suitable for mobile or maritime applications. Please note that if the Linion PV modules are stored in dark spaces for long periods, they must then be exposed to sufficient solar radiation to attain their rated output.

As we continually optimize our solar modules, related data pertinent to these changes will be cited in the technical data sheet. All information applies exclusively to modules produced during the most recent product revision. The modules are certified for use in the following countries: EU countries, Switzerland, Norway, Turkey, Liechtenstein, Israel, Lebanon, Croatia, Bosnia and Herzegovina, Serbia. (09/2010)

About Soltecture GmbH

Based in Berlin, Soltecture is a leading manufacturer of CIS-based thin-film solar modules and a provider of comprehensive system solutions for solar construction. Whether for large commercial roofs or single-family homes, Soltecture offers suitable modules and systems

for all kinds of roofs. The company is the exclusive partner of the Helmholtz Centre Berlin, Europe's largest research institute for thin-film photovoltaics. Its shareholders and owners include Intel Capital, Vattenfall Europe and Gaz de France Suez.



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