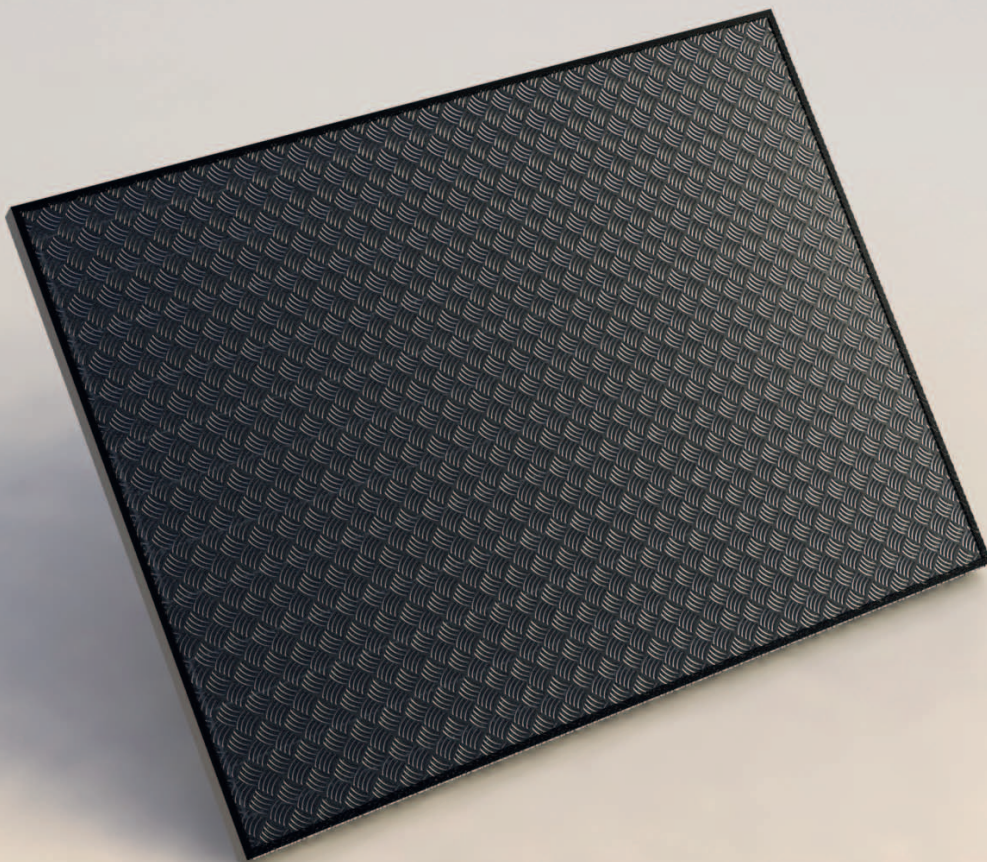
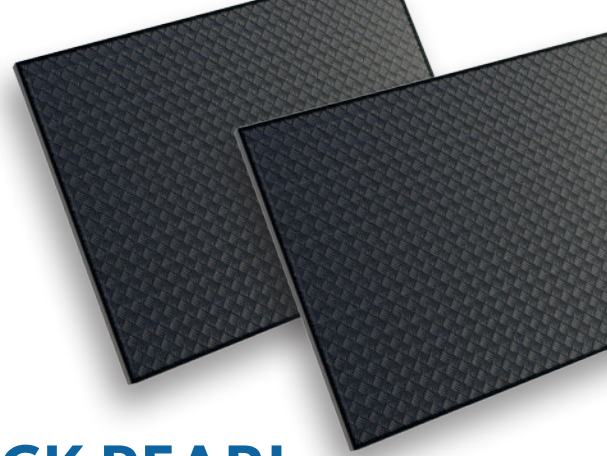


SOLAR PANEL GENIUS BLACK PEARL

FUNCTIONAL DESIGN.





SOLAR PANEL GENIUS BLACK PEARL

The star under the sun.

The design-oriented solar panel from zentral-solar is not only visually appealing, but also scores points for very high yields. A wave-shaped glass surface structure (front glass Albarino-G), sturdy, 4 mm thick glass and increased light reflection make the solar panel a real yield master in its class. The premium

materials reduce radiation loss considerably – and provide for almost a 4 % higher yield performance in comparison to conventional solar panels. Not to mention the fact that through its low susceptibility to contamination, a more significant acquired surplus can be generated by the surface.



Awarded:

RAL-certified all along the line

We are one of the few companies in Germany, which are certified in all four categories of the photovoltaic area of RAL-GZ 966.



CE trademark

Declaration of conformity

Guarantee of adherence to all safety and health requirements under EU guidelines Art. 288, Paragraph 3 AEUV.



IEC 61215

Construction type certification of PV panels by TÜV Rheinland according to IEC 61215 Testing and certification of all PV components to international standards (IEC 61215) as regards thermal, mechanical and radiation-related loading.

Solar panel composition:

- 1 black anodised aluminium frame
- 2 3.2 mm toughened glass
- 3 EVA film
- 4 Monocrystalline cells
- 5 EVA film
- 6 PVF film, white
- 7 Junction box and identification plate



Term			Genius ES 200 M48 Black Pearl	Genius ES 205 M48 Black Pearl	Genius ES 210 M48 Black Pearl
Cell type			Monocrystalline	Monocrystalline	Monocrystalline
Number of cells	piece		48	48	48
Number of bypass diodes	piece		3	3	3
String switching in panel			3 x 16	3 x 16	3 x 16
Cell measurement, a x b mm	mm		156 x 156	156 x 156	156 x 156
Nominal power (-0/+3%)	P_N	Wp	200	205	210
Nominal voltage	V_{MP}	V	24,7	25	25,3
Nominal current	I_{MP}	A	8,1	8,2	8,3
Open-circuit voltage	V_{OC}	V	29,8	29,95	30,12
Short-circuit current	I_{SC}	A	8,6	8,72	8,85
System tension, max.	$V_{SYS-MAX}$	V	1000	1000	1000
Insulation resistance	R_{ISO}	MΩ	>100	>100	>100
Temp. coefficient					
Open-circuit voltage	TK (V_{OC})	%/K	-0,36	-0,36	-0,36
Temp. coefficient					
Short-circuit current	TK (I_{SC})	%/K	+0,02	+0,02	+0,02
Temperature range	ϑ	°C	-40/+85	-40/+85	-40/+85
Panel efficiency level	η	%	15,07	15,45	15,82
Length	L	mm	1340	1340	1340
Width	B	mm	991	991	991
Frame strength	T	mm	50	50	50
Weight	m	kg	19	19	19
Glass strength	d	mm	4	4	4
Area loading	m_L	kg/m ²	550	550	550
Junction box	Material		Plastic	Plastic	Plastic
Protection class	IP		65	65	65
Connection	cable Ø	mm ²	4	4	4
	cable L	m	0,9	0,9	0,9
Connector plug			MC4	MC4	MC4



IEC 61730

Safety qualification of PV panels

IEC 61730 defines compulsory construction features of the panels, requirements for the materials used in the panel and regarding the documentation.



Protection Class II

Reinforced or double insulation under VDE 0100 Part 410, 412.1.



CdTe

Cadmium telluride free
Guarantees that our solar cells are free from cadmium telluride.



PV-CYCLE

Member of the Return and Recycling Programme

As a member of the voluntary Return and Recycling Programme for old models, we guarantee adherence to the promise of comprehensive sustainability.

WHEN IT COMES TO THE ENVIRONMENT, WE DO IN ROME WHAT THE ROMANS DO.

VfL Wolfsburg has won a large environmental partner. With zentralsolar deutschland, the Bundesliga competitor has entered into cooperation within the framework of its Corporate Social Responsibility Activities (CSR).



HIGHLY ADVANTAGEOUS.

Peak Performance.

We rely on mono and polycrystalline cells, which are further processed within their own production. Our technologically high processing level is a guarantee of the subsequent faultless operation of the photovoltaic system, which provides high energy yields at fair manufacturing costs.

Best Warranty.

For the worst-case scenario we guarantee an enhanced warranty on our solar panels: 12 years performance guarantee at 90% and 25 years performance guarantee at 80% of the stated minimum performance. There is also a 10 year product warranty.

Highest Performance Tolerance.

A particularly narrow selection of panel performance enables row switching with low switching losses.

Very simple and quick mounting.

The cables and plug connections (TÜV checked) pre-installed in the factory ensure simple and quick installation.

Extremely High Tension.

All our panels fall into protection category II and are designed for a maximum system tension of 1,000 V. They are suitable both for facilities connected to the grid and for isolated systems that are not connected to the public electricity supply.

You can rely on our qualified Service Partners: