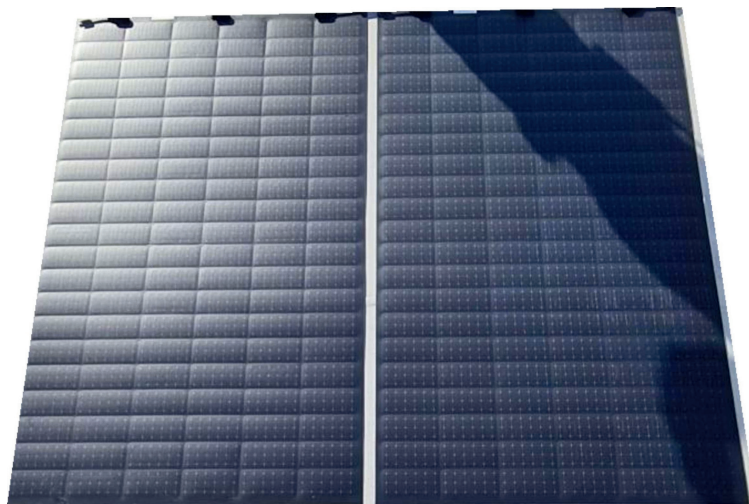


Lightweight Solar

Polysolar's lightweight panels bring solar to roofs that may be unsuitable for a conventional system. Each panel weighs 7.7 kg, under 3.5 kg per square metre, and is only 3 mm thick.

High-efficiency monocrystalline PERC cells sit inside a durable polymer encapsulation, so the panels perform like traditional glass-framed modules, with outputs up to 555 W in the larger formats. Because they are frameless and ultra-thin, you can bond or rivet them straight onto a suitable surface instead of building a heavy mounting system.



FRAMELESS PANELS, BONDED FLAT

3 mm

PANEL THICKNESS

7.7 kg

WEIGHT PER PANEL

555 W

PEAK OUTPUT

0.3 m

BEND RADIUS

Fixed without rails

Bond or rivet the panels directly to the roof. No ballast, no rail systems and few or no penetrations.

Non-intrusive

Minimal fixings help keep a membrane roof watertight while the building generates its own power.

Bends to the roof

A bend radius of about 0.3 m suits gently curved and irregular structures that rigid panels cannot follow.

Where lightweight solar fits

01

Membrane roofs

Frameless panels bond or fix mechanically with very few penetrations, so the waterproof membrane stays intact and the roof still generates power.

02

Low load-bearing roofs

At under 3.5 kg per square metre they add very little structural load, so they suit buildings where a conventional system would be too heavy.

03

Curved and uneven surfaces

With a bend radius of around 0.3 m, the panels follow gently curved or irregular structures that rigid modules cannot cover.

04

Farms and agrivoltaics

Barns and other farm buildings often have limited roof strength. Lightweight panels work alongside our other agrivoltaic options, such as flexible solar over polytunnels.

Conventional and lightweight, compared

	CONVENTIONAL SOLAR	LIGHTWEIGHT SOLAR
PANEL	18–25 kg each and 30–50 mm thick	Under 3.5 kg/m ² and ~3 mm thick
INSTALLATION	Needs mounting rails, roof fixings and a structural load assessment	Bonded or riveted directly to the surface, with minimal structural impact
OUTPUT	Around 400–600 W per panel from monocrystalline cells	Comparable, up to 555 W, using the same high-efficiency PERC cells
APPLICATION	Structurally strong pitched or flat roofs	Low load-bearing roofs, membrane roofs and weight-restricted structures



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