

**Low
Carbon
Building
Products™**

solarcentury product code **ST-C21-P085A-2GRY**

Datasheet

solar**thermal**roof**tile**

C21t

Building Integrated solar thermal roof tile

High power output per tile, less than 8 square metres of C21t would provide roughly two thirds of the hot water for an average three bedroom home.

High efficiency solar glass, designed to maximise heat transmission to the collector plate and reduce reflection.

Latest insulation technology maximises heat retention.

The system is designed to work in both pressurised and unpressurised installations.

No plumbing required on roof.

Tiles arrive on site as complete units avoiding the need for on-roof assembly.

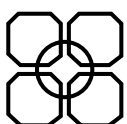


No extra planning - no need to alter roof lines, colour or pitch.
C21 tiles sit flush with standard roof tiles.

Simplicity of installation - tiles fit with traditional roofing practice without the need to adjust battens. One solar tile takes the place of four standard tiles.

No specialist skills - all roofing work carried out by the roofing contractor, allowing plumbing work to follow build programme.

Fast to fit - tiles are integrated in exactly the same way as interlocking concrete roof tiles.



solarcentury

solarcentury is the UK's leading solar solutions brand. We work with architects, housing developers and home owners to deliver renewable energy and carbon reduction solutions.

We are also the leading UK distributor for the world's best solar electric technologies and have helped more homes and businesses go solar than anyone else in Britain.

Specification

Aperture area	0.343m ²
Absorber area	0.224m ²
Absorber type	Flat Plate
Absorber material	0.5mm aluminium sheet
Absorber coating	Alanod Microtherm Sunselect
Solar absorption (AM1.5)	94%
Thermal emission (100°C)	5%
Fluid volume	0.09L
Insulation type	Aspen Aerogel Pyrogel Blanket
Thermal conductivity of insulation	0.013W/mK
Covering	Toughened solar glass
Light transmission	91.2%

Dimensions

Tile size	1220mm x 420mm overall 1180mm x 330mm exposed (recommended)
Minimum pitch	22.5° (90mm headlap)
Headlap	75mm (minimum) 90mm (maximum)
Gauge (batten spacing)	345mm (maximum) 330mm (minimum)
Covering width	1180mm
Covering capacity (net.)	3 solar thermal tiles/m ² (90mm headlap)
Individual tile weight	7kg
Weight of tiling	21kg/m ² (90mm headlap)
Batten size	38mm x 25mm (minimum - for rafters not exceeding 600mm c/c nailed to BS 5534-1: 1997)
Battens required	3.1m/m ² (90mm headlap)
Screws and fixings	4 No. 4.5mm x 40mm self tapping stainless steel screws (supplied with tile) edge clips may also be required

Accreditations and Standards

External fire exposure test to BS 476-3: 1975, AA rating
Designed & manufactured to BS EN 490: 1994 where appropriate
Weather-tightness testing to PIT Agreed Roofing Industry standards

System sizing

No of Tiles	Tiled Area m ²	To provide 60%* of hot water for:
10	3.9	2 person home
12	4.7	2-3 person home
16	6.2	3 person home
20	7.8	3-4 person home
24	9.3	4 person home
28	10.9	4-5 person home

Roof Tile Compatibility

Lagan
Flat tile

Marley (Eternit)
Modern, Duo Modern

Redland (Lafarge)
Mini Stonewold

Russell (Cemex)
Grampian, Highland

Sandtoft
Calderdale Slate

Scott (GRH)
Slemish Mk 2

Quinn
Western slate

