Example name: Vetro Solar Thermal Glazing

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For installations

BISTS Location: UK
Building type: All
Level of BISTS integration
Rush level 3 / Reijenga level 3

- ~~O~~ New Build
- O Refurbishment
- O Other: ……

Type of BISTS:

Active~~/Passive/Hybrid~~

Function(s):
- O Air heating
- ~~O~~ Water heating
- O Combi-system
- O Cooling/ventilation/shading
- O PV/T
- O linked to another system (e.g., heat pump)
- O Other: ……

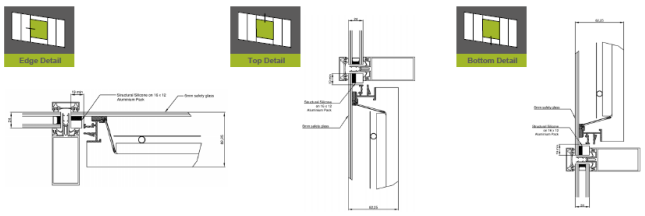
Building element:

- ~~O~~ Facade
- ~~O~~ Roof
- O Other

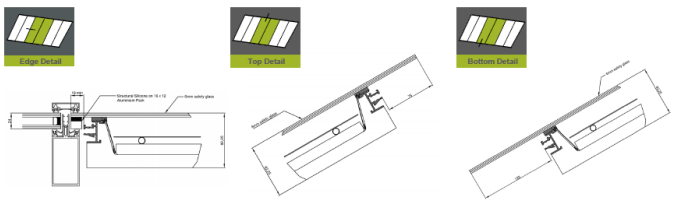
Model		CV15	CV20	CV30
Nominal Area	m^2	1.5	2.0	3.0
Absorber Area	m^2	1.49	2.10	3.05
Zero Loss Efficiency (η_0) Ψ		0.81	0.81	0.81
Heat Loss Coefficient (a_1) Ψ	W/m^2K	3.9	3.9	3.9
Rated Flow	litres/h	75	100	150
Pressure Drop at Rated Flow	MPa	7.0	12.1	34.2
Weight (empty)	kg	39	53	78
Weight (filled)	kg	40	55	80
Minimum Panel Length	mm	1,514	2,078	2,927
Minimum Panel Width	mm		1,202	
Height	mm		82	
Glass Thickness	mm		6.0	
Maximum hydraulic pressure	bar		3.0	
Warranty	years		10	

Ψ These figures are indicative based on Clearline solar panels

Curtain Walling



Sloping Roof Glazing



BISTS characteristics:

The Clearline Vetro is a solar heating panel that is installed directly into vertical and/or sloping glazing systems as easily as a sheet of glass to produce an integrated aesthetic that matches adjacent glazed panels.

Stage of Development:		**Responsible:**
O	Idea/Patent	……..
O	Prototype	……..
O	Demonstration	……..
O	Integral building element	……..
~~O~~	Commercially available	Viridian Solar

BISTS description and context

The Clearline Vetro panels are fitted by a specialist glazing installation company. Where the glazing bar spacing is 600mm, dummy glazing bars can be fitted down the centreline of the panels. Plumbing connections are made from inside the building. A pair of insulated pipes run from the panel to the supplied control set, and on to the hot water cylinder.

System viability

Modelling and simulation tools developed/used

BISTS Performance data

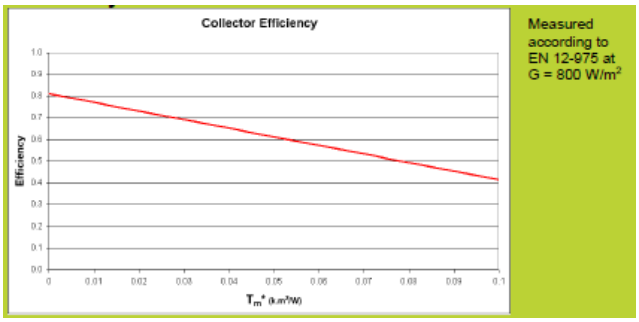
Based on:
O Estimation
O Detailed simulation
~~O~~ Measurement/testing
O Long-term monitoring

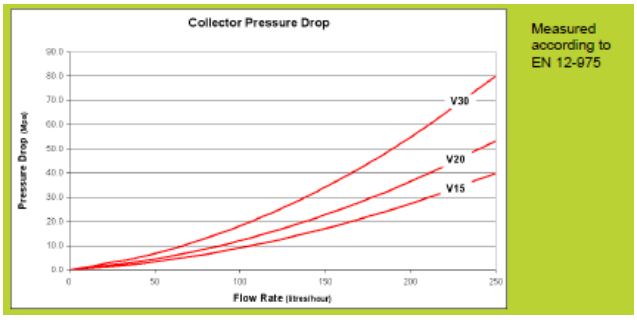
Performance parameters

For integrated systems:
key performance indicators -

For separate collectors:
performance rating coefficients -

Other:





Additional information:
Sources and references: