

Marvel Flat Plate Solar System Package

Designed for the UK climate, the Marvel panel has everything you could look for in a flat plate solar thermal panel.
These are robust, hard wearing and high performance flat plate panels delivering excellent levels of efficiency, flexibility in installation and a sleek and subtle design of all components.

The Marvel solar panel is a flat plate, aluminium cased, low iron tempered glass unit containing copper risers with copper plate, 'tinox' coated absorber, ultrasonically welded to give a full covering of copper within the unit.

The glazing is tested to BS 12975 hail test and is guaranteed under these extreme conditions.
The glazing is EN572-5 / EN12150-1 certified.

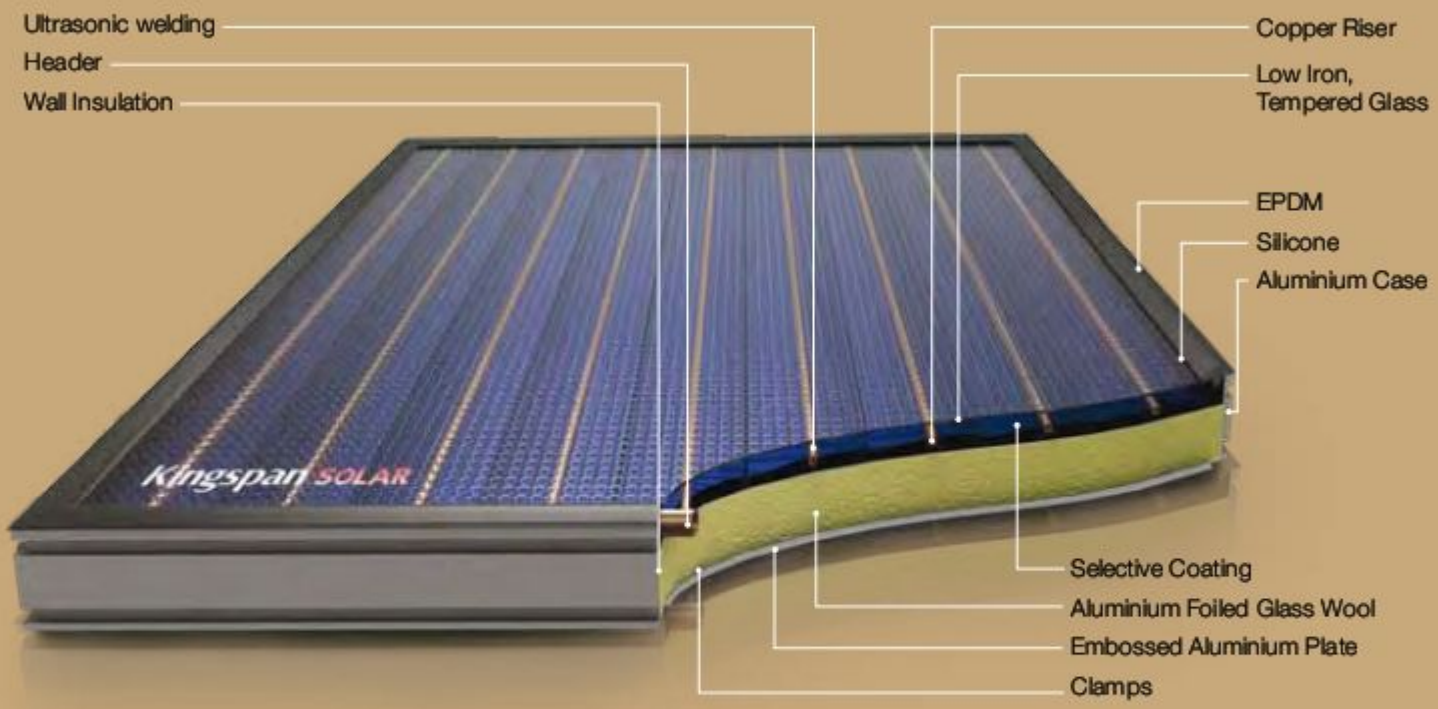
Units are sealed with EPDM materials which are UV durable. Glazing gaskets are one piece channel type to ensure weather proofing.

These solar panels can be mounted either 'in-roof' or 'on-roof'. 'In-roof' installation comprises the solar panel which is encased in a cassette unit that is mounted directly on to the roof battens. The solar panel/cassette unit is then tiled into the roof to give a weather tight installation maintaining the integrity of the roof – this type of installation normally takes place on new build properties.

'On-roof' installation, designed for fitting to existing properties, means that the solar panel is mounted on top of the existing roof tiles, on brackets that penetrate through the roof and are bolted to the rafters to ensure a secure fixing. (A variety of fixing brackets is available to suit all types of roof tiles including concrete, slate and clay peg).

Marvel flat plate panels are guaranteed for a period of 10 years of operational use and offer a straight forward solar thermal solution perfect for the needs of UK homes.

Kingspan



Panel Details

- Panel - Ultrasonic welded selective surface coated copper plate.
- Glaze - Low iron, tempered glass with 91% transmission (EN 572-5 - EN 12150-I certified).
- Sealing - Enclosure seals are UV durable EPDM materials. Glazing gaskets are one piece channel type with moulded corners to assure long life and avoids all water penetration.
- Case - Collector cases are all aluminium coated with electrostatic black colour.
- Insulation - CE Certificated High Density Rockwool.
- Flexible Connection - For ease of installation.
- Back Sealing - Provided by clamps and silicone.
- Air Ventilation Holes - Prevent internal condensation.
- Back Plate - Embossed aluminium plate.
- Wall Insulation - Special matt black painted glass wool for increased performance.

Approved Quality

Marvel is the celebrated, trademark collector line of Kingspan Solar. Its aim is to attain the highest level of quality in both its design and production. For this reason, the materials that are utilized in production are those of the highest quality in comparison to those used in comparable products on the market. Moreover, Marvel collectors have been analysed time after time in many countries of Europe, in the USA and in Australia for performance issues such as productivity, absorption and durability and have passed these tests successfully. With this track record, Marvel collectors, which have proven to be environmentally responsible through their employment of choice materials in the production process, have succeeded in receiving more than ten approval certificates from respected institutions.



Solar - Specification summary





Marvel 1808 Flat Plate Thermal

Size:	1945 x 945 x 105
Panel weight:	37.5 kg
Panel volume of liquid:	2.36 litres
Test Pressure:	20 bar
Max operating pressure:	10 bar
Pressure loss across panel:	1.0 mbar
*Zero Loss Collector Efficiency (ni):	0.773%
*Heat Loss Coefficient (a1):	3.913 w/m^{2}K
Absorption level:	95%
Thermal emission level:	3%
UV absorbance level:	97%
CO_2 Displacement:	383kg CO_2 (per panel per annum)
Absorber Plate:	Copper
Internal Pipework:	Copper
Glass:	low ironed tempered safety
Glass Transmission:	91%
Insulation:	Rockwool
Base thickness:	60 mm
Side thickness:	20 mm
High limit temperature:	232°C
Casing:	Aluminium
Back Plate:	Embossed Aluminium
Riser to Absorber plate fixing:	Ultrasonic weld
Type of Mounting:	In-roof and on-roof
Gross area:	1.84 sq m
Aperture - Nett Area:	1.67 sq m

*Items required for SAP calculations

Marvel 2108 Flat Plate Thermal

Size:	2006 x 1059 x 105
Panel weight:	41.57 kg
Panel volume of liquid:	1.07 litres
Test Pressure:	20 bar
Max operating pressure:	10 bar
Pressure loss across panel:	1.6 mbar
*Zero Loss Collector Efficiency (ni):	0.773%
*Heat Loss Coefficient (a1):	3.913 w/m^{2}K
Absorption level:	95%
Thermal emission level:	3%
UV absorbance level:	97%
CO_2 Displacement:	1 tonne CO_2 (per panel per annum)
Absorber Plate:	Copper
Internal Pipework:	Copper
Glass:	low ironed tempered safety
Glass Transmission:	91%
Insulation:	Rockwool
Base thickness:	60 mm
Side thickness:	20 mm
High limit temperature:	232°C
Casing:	Aluminium
Back Plate:	Embossed Aluminium
Riser to Absorber plate fixing:	Ultrasonic weld
Type of Mounting:	In-roof and on-roof
Gross area:	2.12 sq m
Aperture - Nett Area:	1.944 sq m

*Items required for SAP calculations