

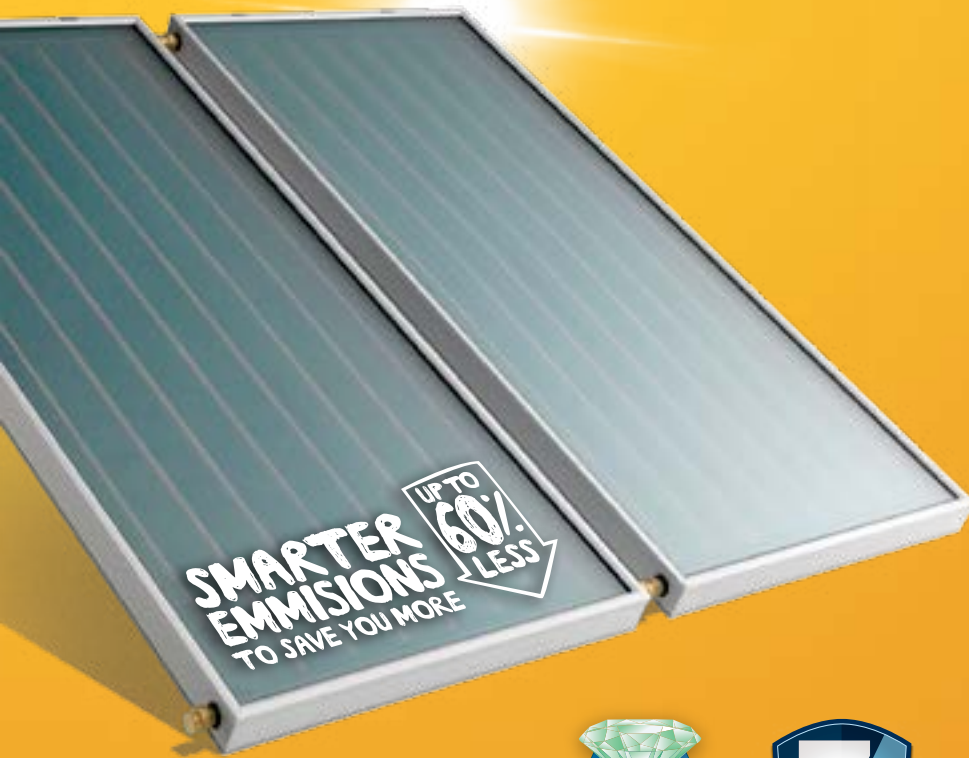
# SOLAR COLLECTOR

## Solar Hot Water Collectors

As an integral component of the Invincible™ EcoSmart Solar Hot Water system, the EcoSmart Flat Plate Collectors are highly efficient and built to last. As a result, this helps EcoSmart have one of the highest STCs against comparable systems.

### Solar Collector Comparison

| SYSTEM                        | WEIGHT ON ROOF                | GLASS THICKNESS |
|-------------------------------|-------------------------------|-----------------|
| ECOSMART 2 PANEL SPLIT SYSTEM | 87kg<br>over 2m <sup>2</sup>  | 3.2<br>mm       |
| 330L ROOF MOUNTED SYSTEM      | 450kg<br>over 2m <sup>2</sup> | 3.2<br>mm       |



- ✓ 3.2mm toughened glass provides peace of mind in a hail storm
- ✓ Super absorbent selective surface effortlessly converts the sun's energy to hot water
- ✓ Prismatic glass reduces energy loss through reflection
- ✓ "Never Rust" extruded aluminium frame that is built to last
- ✓ 40mm thick glass wool insulation ensures absorbed energy is not lost
- ✓ Oversize solid brass connections create a rigid water tight system
- ✓ 7 year panel warranty protects your investment

### THE ECOSMART ADVANTAGE

Save money, save energy and save the environment by installing a next generation technology EcoSmart Solar Hot Water system.

An EcoSmart Solar Hot Water system can slash the average household's water heating bill by 80%\* - that's up to 295 days free hot water every year - as well as help eliminate tonnes of potentially damaging greenhouse gases from our environment.

Savings based on data in comparison chart - 81% efficiency in zone 3 model E3S136T2AC dependent on orientation and conditions. Excludes water costs.

Whether you are building a new home or replacing an existing system, you can rely on EcoSmart for a full range of gas and electric boosted Solar Hot Water systems, as well as the environmentally friendly Solar Heat Pump.

EcoSmart units are built tough to withstand Australia's harsh conditions from outback heat to extreme frost.



# TECHNICAL INFORMATION



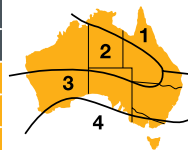
|                                  |                                      |
|----------------------------------|--------------------------------------|
| Collector Type                   | Flat Plate Solar Hot Water Collector |
| Total Area (m <sup>2</sup> )     | 2.0                                  |
| Aperature Area (m <sup>2</sup> ) | 1.8                                  |
| Absorber Area (m <sup>2</sup> )  | 1.7                                  |
| Glass Material                   | Toughened, low iron                  |
| Glass Thickness (mm)             | 3.2                                  |
| Weight without Water (kg)        | 41                                   |
| Weight with Water (kg)           | 43.4                                 |
| Collector width (mm)             | 1080                                 |
| Collector Height (mm)            | 2014                                 |
| Collector Thickness (mm)         | 85                                   |
| <b>Absorber Specs</b>            |                                      |
| Surface Treatment                | Black Anodised                       |
| Construction Type                | Fin & Tube                           |
| Copper Tube Diameter (mm)        | 25.4 x 0.8                           |
| <b>Casing Specs</b>              |                                      |
| Cover Sealing Material           | Vulcanised Rubber                    |
| Casing Sides                     | Extruded Aluminium Alloy             |
| Colour                           | Silver Anodised                      |
| Casing Backing                   | Galvanised Steel Plate               |
| Corner Sealant                   | Black Silicon                        |
| <b>Operating Specs</b>           |                                      |
| Maximum Operating Temp (°C)      | 200                                  |
| Maximum Operating Pressure (kpa) | 1000                                 |
| <b>Warranty*</b>                 | 7 years (1yr parts/labour)           |

\*Warranty: Warranty terms and conditions are in the product's Owners Manual, visit [www.ecosmart.com.au/warranty](http://www.ecosmart.com.au/warranty) for full details and conditions which apply.

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Water passes through the flat plate collector and therefore requires no need for heat exchange.</li> <li>3.2mm toughened glass</li> <li>Most efficient when installed on the incline of a standard household roof (15-25°C)</li> <li>Prisimed glass refracts light to hit the collectors, allowing for maximum absorption when the sun is low in the sky</li> </ul> | <ul style="list-style-type: none"> <li>A heat exchange is required to heat the water</li> <li>2mm Borosilicate glass</li> <li>Round collector allows for absorption when the sun is low in the sky</li> <li>Ideal for high temperature industrial process heating</li> </ul> |
|--|--|

| Solar hot water system comparison                              | STC ZONING |    |    |    |
|--|------------|----|----|----|
|  | 1          | 2  | 3  | 4  |
| EcoSmart 2 panel 315L Electric Boost Split System <sup>1</sup> | 39         | 42 | 37 | 32 |
| 2 panel 300L Roof Mounted System <sup>2</sup>                  | 28         | 31 | 27 | 24 |
| 315L tank with 22 Evacuated Tubes <sup>3</sup>                 | 26         | 29 | 25 | 22 |

System models: <sup>1</sup>EcoSmart E3S136T2DC, <sup>2</sup>Rheem 52H300K/2S, <sup>3</sup>Apricus AE-315-GL-MID-22. STC calculations for all units are based on Continuous Tariff. STC values are subject to change without notice and are correct at time of printing.



## ECOSMART FLAT PLATE PANELS VS EVACUATED TUBES

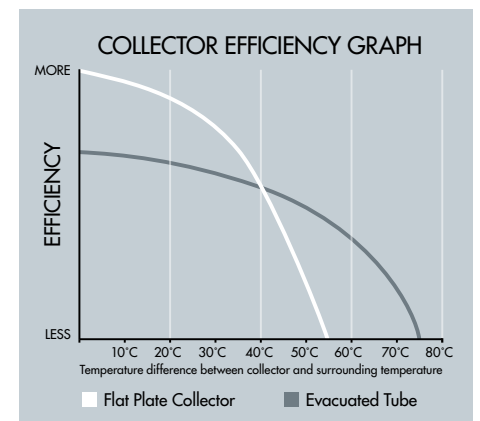
The EcoSmart Flat Plate Collector operates with high efficiency, in normal ambient air conditions, when used for its intended purpose of heating domestic hot water to 60 - 70°C.

Evacuated tubes are more efficient when used to heat water for commercial activities such as steam generation or industrial process heating.

EcoSmart Flat Plate Collectors are most efficient when the difference between the desired water temperature and the surrounding air temperature is up to 40°C. This heating differential is typical for Australia's year round sunny climate.

Due to this natural advantage, flat plate collectors are able to capture solar gain more efficiently in our Australian climate.

As a result EcoSmart systems with flat plate collectors earn more STCs when compared to evacuated tube systems.



**Panel efficiency is only one component of a system. For absolute energy saving please refer to system STC scores.**

## BUILT TOUGH TO SERVE YOU LONGER

Not only are EcoSmart panels the most efficient standard panel on the market, they are also built to last. Our panels are manufactured to a standard which ensures a 7 year protection.

- Extruded aluminium frame
- 3.2mm toughened glass
- No plastic components anywhere
- 7 year collector panel warranty\*

