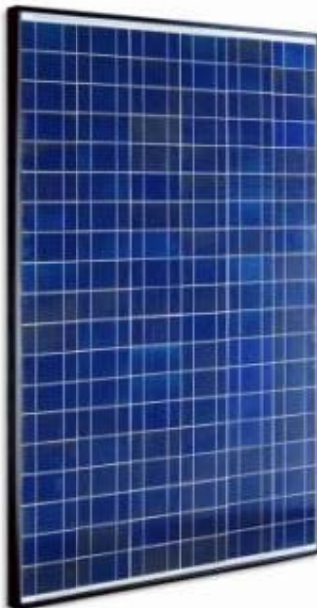


## Evergreen releases black framed ES-A Series panels



### Improving roof aesthetics



Evergreen is pleased to confirm that from April 6<sup>th</sup> its Massachusetts, USA, facility is producing ES-A Series panels **exclusively** with black frames.

The new frame is physically identical to the existing frame except for the surface anodisation colour. The anodisation (architectural class 1) provides excellent protective properties and colour stability.

Installation of these panels is no different to the former panels with clear anodised frames except that installers may want to use black anodised mounting clamps or fixtures to ensure a homogenous appearance of the system.

Evergreen will maintain a warranty stock of ES-A Series panels with the clear anodised frames to cater for any future replacement needs.

The model number for the black-framed ES-A Series panels is changing to reflect the black versus clear anodised frames. This allows customers to distinguish between the two products and appropriately manage transition inventories:

Clear Anodised Model Number	Black Anodised Model Number
ES-A-xxx-fa2	ES-A-xxx-fa3

('xxx' refers to the rated panel power; 'f' refers to the panel being framed, 'a' refers to the voltage configuration and '2' or '3' refers to the look of the panel).

Evergreen is also making **minor modifications to the nominal voltage, current and temperature coefficient ratings** of the ES-A Series panels based on experience gained during the first 9 months of production of this panel type. This change is not being made as a result of this, or any other, product change. See the associated bulletin for more detailed information.

**See next page**

## Frame Anodisation Specifications

In order to help ensure colour matching between the ES-A Series black frame and any other mounting hardware used in an installation, below is the specification of the black anodisation being used on the frames:

- a) ANODISED, ARCHITECTURAL CLASS 1, BLACK, PER ALUMINIUM ASSOC SPEC DAF 45: AA-M10C22A44 OR AA-M10C21A44
- b) USING A 60 DEGREE SPHERICAL SPECULAR INCLUDED SPECTROPHOTOMETER AND USING ILLUMINANT D65/10 DEGREES, L < 28 AND GLOSS RANGE OF 7 +/- 5.
- c) FINAL FINISH MEETS TESTING REQUIREMENTS OUTLINED IN APPLICABLE SECTIONS OF AMERICAN ARCHITECTURAL MANU ASSOC SPEC AAMA 611-98.

## Recommended Frame Cleaning Methods

Although anodisation produces a hard and tough finish on the frame, we recognize that scratches may show up more easily on black framed panels compared to clear framed panels.

Because of the hardness of the anodisation, visible scratches are actually more likely to be residue left behind from other materials which have come into contact with the frame during handling and installation.

Evergreen Solar has developed specific guidelines for cleaning such scratches from the surface of the frames. The guidelines are contained in the latest revision of the **Evergreen Solar Safety, Installation and Operation Manual**. They are also summarized below:

- Deposits of foreign material on the frame surface can be cleaned using a wet sponge or cloth and dried in air or by using a clean chamois leather.
- Alternatively, a mild detergent or glass cleaner may be used. Never use aggressive alkaline or acid cleaners to clean any part of the panel.
- Foreign material on the frame may in some instances look like small scratches, but in most cases can be removed by cleaning.

*If you have any further questions regarding this product, please do not hesitate contacting your local Evergreen Solar representative or use the Contact Us function on our website.*

**THE END**