

Solar Technologies: The fundamental differences

Amorphous Solar Technology

Color: black to dark brown in color.

These panels have the widest light spectrum absorption levels. They can produce current in poor light conditions or earlier and later into the lunar day. This means while other solar technologies have no output at all the amorphous panel will have output during these low light situations. The amorphous panels are typically larger in size when compared with panels of similar wattage, but are also far less expensive. These panels are great for [low wattage maintenance situations](#) for keeping batteries in your car, motorcycle, SUV, truck, RV, boat and tractor in a fully charged state.



Polycrystalline Solar Technology

Color: Shades of dark to light blue in a mosaic fashion.

The polycrystalline panel works best in direct sunlight with proper south facing installation (in the northern hemisphere). They will produce 2-3 times more power than a similarly sized amorphous panel making them far more efficient. Polycrystalline solar panels are ideal for [high wattage installations](#) or where physical space is limited.



Mono-Crystalline Solar Technology

Color: Shades of darker blue.

Similar to polycrystalline units, but different in that each module is made from a single silicon crystal, and is more efficient, though more expensive, than the newer and cheaper polycrystalline types. These panels will last 25-50 years.

Cadmium Indium Gallium deSelinide (CIGS) Solar Technology

Color: Greenish brown to black in color.

CIGS solar panels combine the technologies listed above. Like the amorphous panels, they work well in low light situations and are efficient like the polycrystalline panels in direct sunlight. These are most often used in [thin film or flexible solar cells](#).

