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Our Solar Power Spirit

Our Earth

About Solar Energy

Principle of Solar Cell

Manufacturing Solar Modules

Activity & Promise of KYOCERA

Technology

History

Installation Example

Global Network

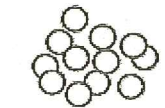
Regional Products

Information (English) :

- North, Central & South America
- Europe, Middle East and Africa
- Asia, Pacific
- Australia

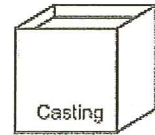
Manufacturing Solar Modules

How Solar Modules Are Produced

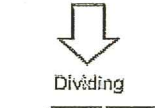
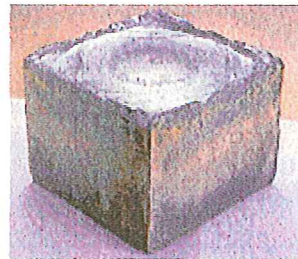


Silicone Particles

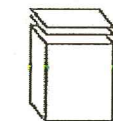
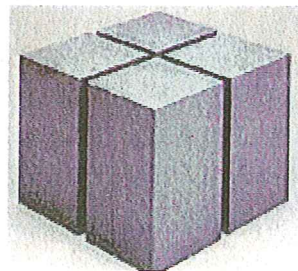
First, silicon raw material is melted and re-casted to remove impurities. The casted silicon is then stabilized in its polycrystalline form. These casts are called "ingots" and are cut into blocks.



Casting

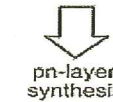
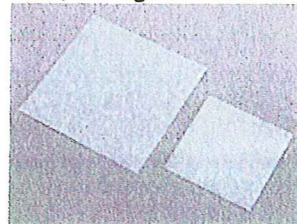


Dividing



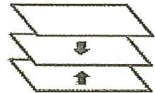
Wafer Slice

Next, the ingots are sliced into wafers.

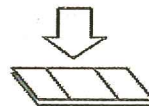


pn-layer synthesis

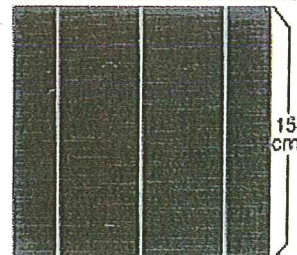
p-type and n-type silicon wafers are produced dependent on the sliced silicon.



Thus electricity can be generated. Electrodes are also attached to the wafers to conduct the electricity flow, which is called "solar cell."



Electrode formation



Although this is enough to generate small amounts of electricity, Solar cell are connected in series in order to increase voltage to a useful level. Tempered glass and encapsulants are used to support the cells. "Solar Modules" are thus produced.