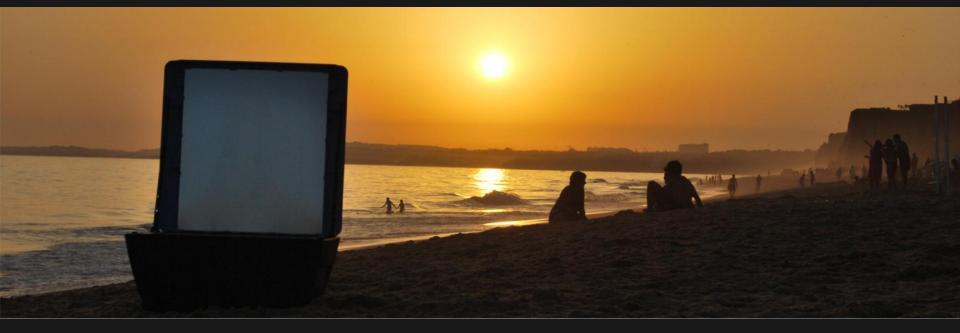


## SUN COOK solar oven



Manufactured by SunOK, Portugal

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### CONCEPT ... main features



Reliance on solar energy makes it completely autonomous while totally unattended Simplicity cooking frees up users

Slow cooking, in about twice as much time as normal cooking methods, results in tastier, more succulent and

highly nutritive food.

safety Sturdi First class No fuel, no

plastics, tempered glass and aluminium mirrors, all guarantee a long life even under the most unfavourable conditions.

flames, no ashes. no smoke, no danger of setting fire to the surroundings and reduced danger of skin burns.

# CONCEPT ...who benefits



The SUN COOK can be used on the garden, while camping, near the swimming pool, on boats, on the beach or even by specialty restaurants.

Families looking for plentiful outdoor times without putting children and nature at risk.

Gourmets wishing to cook tastier and more succulent food.

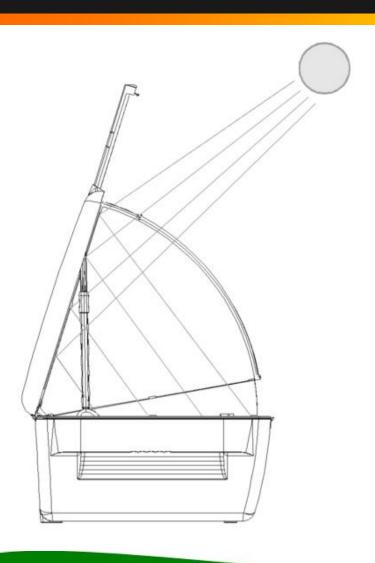
Retired people looking for a simpler, healthier and more economical way of cooking their meals.

Companies wishing to express their green credentials through the gifts they offer to customers.



# CONCEPT ...outside





The Sun Cook® oven uses for the first time ever in a cooker the so called "ideal optics" or "non imaging optics".

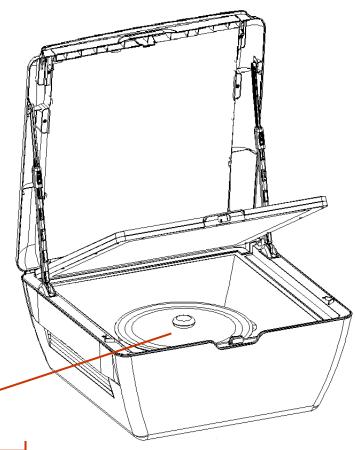
Solar radiation is reflected by the external flat mirrors, through a lid with two tempered glasses and into the inside compartment that acts as a greenhouse.

All the radiation directed inside is then converted in thermal energy for the purpose of cooking.

The whole is placed inside a box made up of carefully selected recyclable plastics allowing both for lightness and durability.

# CONCEPT ... and inside





The cooking pot is placed inside an insulated compartment

Inside the cooking compartment mirrored walls act as compound parabolic concentrators greatly reducing the need for regular reorientation. These concentrate all incoming solar radiation to the bottom absorbing plate, which in turn radiates heat allowing for a very homogeneous temperature to be attained.

The cooking compartment is surrounded with thick insulating materials all around for good insulation.

A double glass lid allows for the inflow of solar energy while preventing any thermal losses.

### THE PRODUCT





Food Quality
Tastier and more succulent food

pleases every gourmet.

Versatile
Temperatures up to 200°C/400°F allow for every recipe except frying.

Completely unattended cooking.

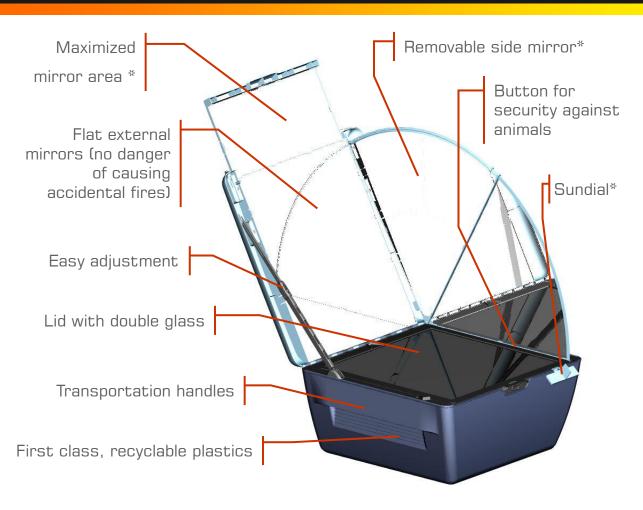
As transportable as a suitcase.

No fuel, no poliution, no CO2.

Free source of energy.

# PRODUCT ... its characteristics

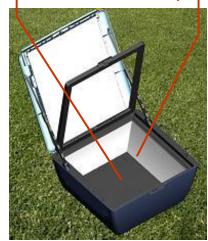




Dimensions: 59x55x29cm Weight: 13kg

Black, absorbing plate

Concentrating mirrors with patented shape



**Tropical version** 

<sup>\*</sup> Marked components are not included in the lower cost Tropical version.

## PRODUCT ... what can it cook



All sort of dishes can be cooked, except frying. A recipes booklet is supplied, including (cooking times within parenthesis):

- Pork chops (20-30 min);
- Grilled fish (30-45 min);
- Curry chicken (90-120 min);
- Vegetables soup (120 min);
- Beans stew (2 hours)
- Walnut cake (60-75 min);
- Bread and several others.















# PRODUCT ... materials



The SUN COOK is built using the most advanced materials, all of them produced in Europe or the USA in order to guarantee the user's satisfaction:

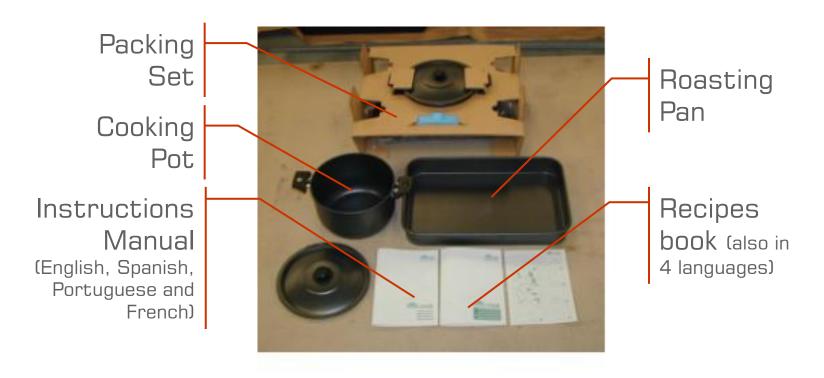
- •Glass tempered and with a low iron content for an adequate transparency. Made by a world leader in this field;
- Mirrors polished and coated aluminium made in Germany by a specialized manufacturer;
- Plastics five different types of recyclable plastics, chosen according to the requirements of each particular part;
- •Insulation mineral wool specifically conceived for cooking ovens by a leading global manufacturer;
- Glues and sealing tapes from world class manufacturers.

# PRODUCT ... what's included?



### A product ready to use

In order to enable customers to start using their SUN COOK as soon as they take possession of it (should weather conditions allow it), each unit includes:



# PRODUCT ... performance



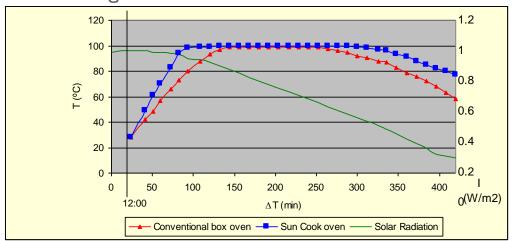
### Boiling 2.3 I of water

### High energy concentration:

 due to optimal optics boiling temperature is attained after 90min against more than 2 hours for another solar oven of similar dimensions.

### High energy retention:

 efficient insulation allows food to remain warm long after sunset. Reduction of temperature to 80°C occurs 1 hour after the other oven. For lower temperatures the difference is even more significant.



# PRODUCT ...frequent questions



#### What is it good for?

The SUN COOK is a complement to existing cooking gas or electrical stoves, grills, etc., providing food for a 4 to 6 persons , in an healthier fashion, outdoors and using clean energy.

#### How does it work?

A set of properly shaped mirrors, concentrates solar radiation onto a black solar absorber plate, which in turn heats up the whole oven and the cooking vessels.

#### What are the weather requirements?

It is independent from ambient temperature. Solar exposure is what is required for cooking to be achieved. Sunny days are the best, but a few clouds will not be too important. Moreover its efficient heavy thermal insulation keeps the food warm for many hours after cooking.

#### Can it cook inside a house?

It may cook inside as long as it is exposed to the sun (better not behind any glass) . It is fully autonomous and thus it can be placed outside easily.

#### What kind of cooking can be done?

It does all types of cooking like boiling, stewing, grilling, baking, except frying. However it allows for sautéing. It substitutes for traditional methods with advantage, as it gives an extra taste to the cooked food.

#### What cooking vessels should be used?

To take full advantage of the Sun Cook's capacities it is wise to use the cooking vessels provided by SUN CO. However many others can be used provided they are black on the outside, with a perfectly flat bottom, and with thin metallic walls. Plastics, ceramics or light coloured vessels will not give good enough results.

#### How long does it take to cook?

Between 1 and 2 hours is enough to cook most foods. Although cooking is slower than with conventional stoves, the SUN COOK does not require any assistance, thereby freeing people for other activities. In the end users spend less time cooking than if they were using other more traditional methods.

#### Is it fragile?

It uses plastics with high resistance to thermal and mechanical impacts. It uses tempered glass and mirrors conceived for solar applications. The whole is very robust and has been intensively tested under the most unfavourable conditions. One should be careful not to damage the mirrors through scratching or banging since that would hinder the oven's efficiency.

#### What special care is it necessary?

The inside of the Sun Cook should not be touched while hot and it should be placed in a stable position, on flat surfaces. While removing the cooked food care should be taken to let the first steam come out.

#### How to keep it in perfect shape?

Under normal circumstances, food never contacts directly the oven. However some spillage may accidentally occur. In that case wipe it clean with a soft cloth or paper tissue. If necessary use a non-abrasive detergent or soft soap and dry it with a soft cloth or simply under the sun.







Food Quality

Convenience

Economy

**Ecology** 

Safety

# ADVANTAGES ... food quality



Positive impact in what concerns users health:

- Cooking takes place slowly, with lower power and a gentle, homogeneous temperature resulting in tastier and more succulent food.
- Less water is used when compared with traditional cooking methods, therefore conserving vitamins and resulting in better nutrition.



# ADVANTAGES ... convenience



When compared to traditional cooking:

- No need to attend the oven while cooking;
- Easy cleanup (no fuel, no ashes, no burnt food sticking to the pot);
- No time spent collecting wood.

When compared to other solar cookers:

- No need for regular reorientation to the sun;
- High efficiency due to complex and innovative shape of mirrors.



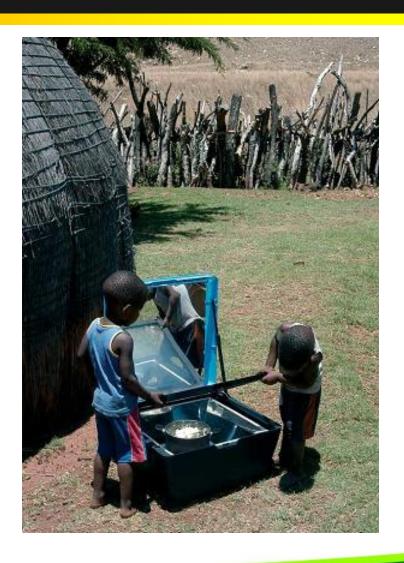
### ADVANTAGES ... safety



When compared to traditional cooking:

- No risk of fire when compared to wood cooking;
- No risk of explosion as it happens while cooking with fuel or gas;
- Improved child safety (lower temperatures on contact surfaces reduces risks of skin burns).

In addition, by using flat external mirrors there's no danger of setting fire to the surrounding area.



### ADVANTAGES ... ecology



### No burning of fuels means:

- No CO<sub>2</sub> emissions;
- No damage to the atmosphere;
- No deprivation of often expensive and scarce natural resources.

## When compared to firewood cooking:

- No deforestation;
- No exposure of users to lung and eye damaging smoke;



# ADVANTAGES ... economy

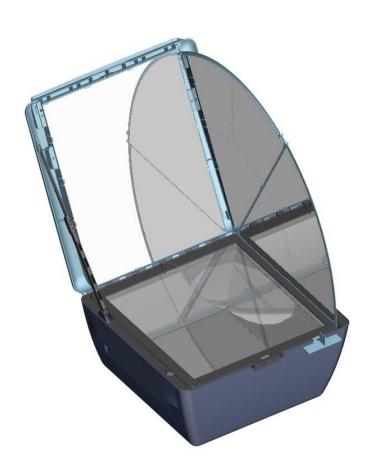


Free and ubiquitous source of energy: the sun's rays.

Good value for money: mass production allows for both quality and low cost.

Durable: designed and built for a long life on open air. First class plastics (with resistance to UV, heat and scratches), tempered glass and aluminium mirrors.

Reduced maintenance: requires only normal cleaning.

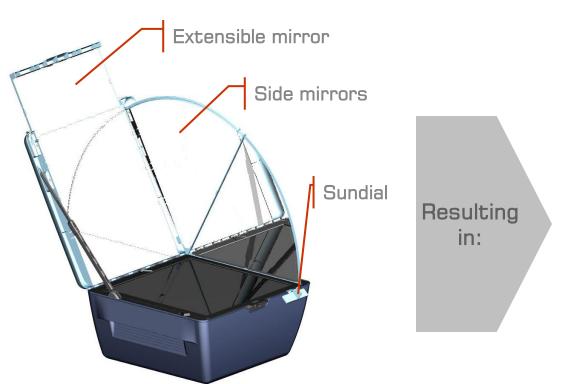


## **VERSIONS** The Tropical version SUNDUK



For countries with a high sun exposure the Sun Cook Tropical is an adequate alternative to the standard version.

It is obtained by removing the following components:







The SUN COOK Tropical

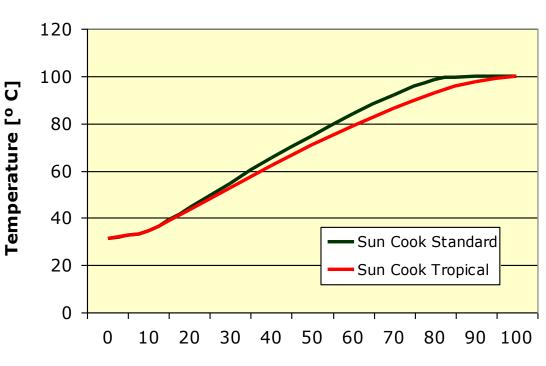
# VERSIONS ... for tropical regions



#### The result is:

- ▲ Lower cost
- ▲ Sturdier

  Less removable parts
- ▼ Need of reorientation
  At a frequency of about 1h
- ▼ Decreased performance Cooking times 15% up



Time [min.]

Heating time [min.]	Standard	Tropical
from 34 to 40°C	7.5	8.0
from 40 to 80°C	43.5	48.5
from 80 to 100°C	28.5	35.0
from 34 to 100°C	79.5	91.5

# COMPANY ...contact us



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# COMPANY ...corporate info.



SunOK is a Portuguese company (VAT no. PT - 508 715 180)

SunOK is the sole manufacturer of the SUN COOK solar oven

Sun Cook is a registered trademark

