CILICANT

Your product packaging has taken care of moisture but what about OXYGEN?

We often think about how to stop moisture getting into the product packaging , but cutting the oxygen supply is also an imperative in order to give a longer shelf life, making it consumable for longer.

How does oxygen affect food?

When food comes into contact with oxygen, it oxidises the fats within the product and encourages changes that will make it inedible. Such changes include:

- Becoming rancid
- Degrading proteins
- Encouraging mould to grow
- Colour change
- Flavour alteration
- Taste change
- Oxidisation of vitamins that compromises their efficiency

We can prevent this from happening

By inserting the CILICANT Oxygen Absorber into the packaging, it will remove oxygen and keep the product fresher for longer.

About CILICANT Oxygen Absorber

CILICANT Oxygen Absorber contains a unique formulation which has Iron as an active ingredient & is packed in special fabric which enhances permeability of Oxygen.
When placed properly in a hermetically sealed package, the Oxygen within the packaging is significantly reduced to 0.01 %.

CILICANT Oxygen Absorber ranges from 20cc to 3000cc.*

*Customisation available

Features of CILICANT Oxygen Absorber

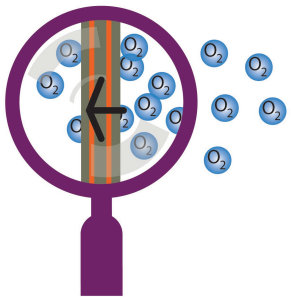
- Non-toxic, food grade
- Does not impart taste or smell
- Does not contain additives or preservatives
- Manufactured at a cGMP compliant facility
- USFDA compliant
- Absorbs over 99.99% of oxygen when sealed and packaged correctly

Benefits of using CILICANT Oxygen Absorber

- Eliminates the need for harmful preservatives
- Increases food and nutraceuticals shelf life
- Prevents mould and aerobic microbial growth
- Keeps vitamins A, C and E active and effective
- Prevents oil oxidisation and rancidity
- Prevents colour and texture change

How to use CILICANT oxygen absorber effectively

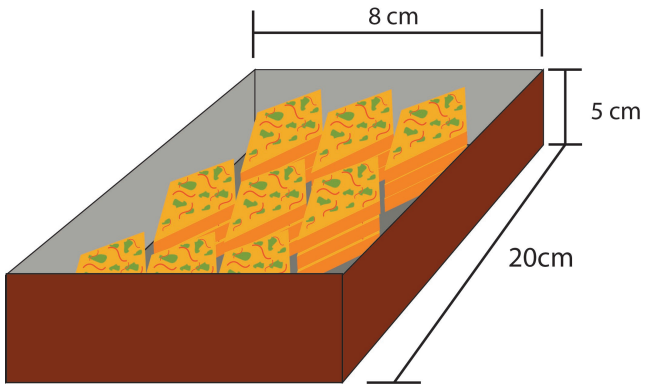
STEP 1 Choose suitable barrier packaging



The correct packaging used should be a high gas barrier material with less OTR.

STEP 2 Measure the volume of oxygen in product package

The volume of oxygen in air is approximately 20%. It is important to work out how much oxygen is in each package in order to determine how much CILICANT Oxygen Absorber to use.



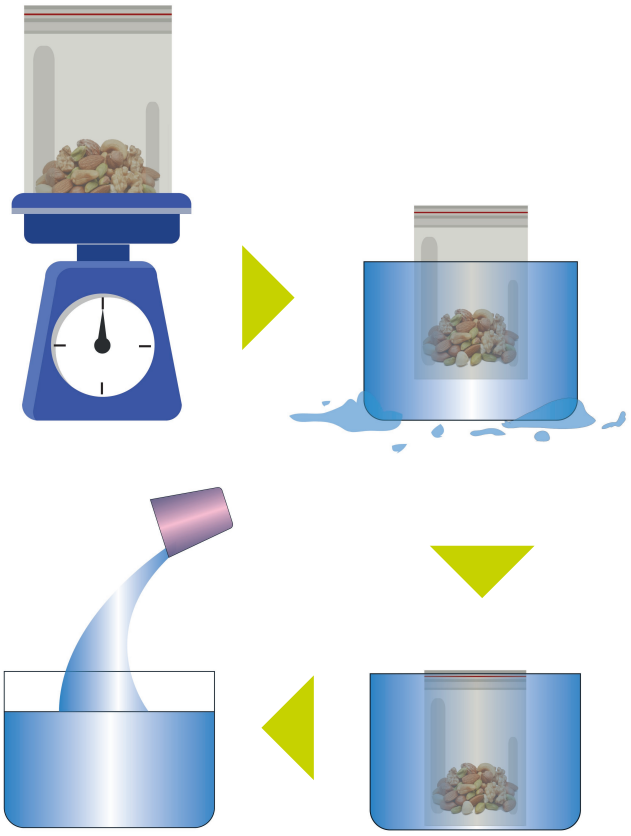
$$\text{Oxygen in Container} = \left\{\frac{\text{Volume Of The Container (cm)} - \text{Weight Of Product (g)}}{\text{Specific Gravity (=1)}}\right\} \times \frac{1}{5}$$

Assuming Specific Gravity=1
Weight of the product = 400 g

$$\left(\frac{20\text{x}8\text{x}5 - \frac{400}{1}}{}\right) \times \frac{1}{5} = 80 \text{ ml}$$

Using a rigid container:

1. Measure the container dimensions in order to determine the package volume
2. Weigh the food product accurately
3. Use the given formula with the calculated values in order to determine the oxygen content in the product package.



$$\text{Oxygen in Container} = \left\{\text{make-up water volume (ml)} - \frac{\text{Weight Of Product (g)}}{\text{Specific Gravity (=1)}}\right\}$$

Assuming Specific Gravity=1
Weight of the product = 300 g
Make-up volume of water= 500 ml

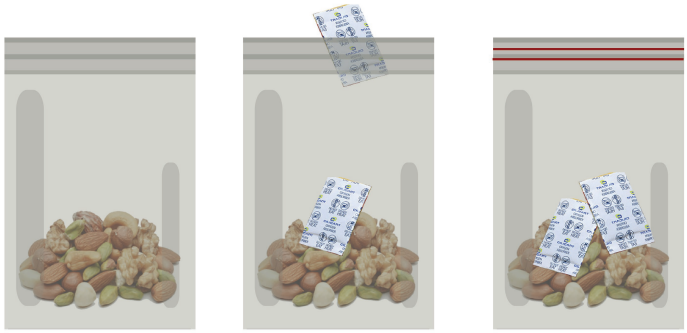
$$\left(\frac{500 - \frac{300}{1}}{}\right) \times \frac{1}{5} = 40 \text{ ml}$$

Using a flexible container:

1. Measure the weight of the product package.
2. Fill the vessel with water and immerse your product package into the vessel.
3. Allow the water to overflow.
4. Measure how much water is required in order to fill the vessel back up with water – this gives you the make-up water volume.

The formulas will allow you to calculate the capacity of Oxygen that the food packaging holds. Once the calculation is complete, you will be able to determine how much CILICANT Oxygen Absorber to use.

STEP 3 Package your product properly



Package your product properly

1. Place the CILICANT Oxygen Absorber sachet above the product when putting it in the package.
2. Hermetically seal the product package to maintain airtight environment.

Please note:

- The CILICANT Oxygen Absorber sachets need to be spread out on a working table before being inserted in the product package. Ensure the sachets are never piled on top of each other.
- When sachets are removed from the master bag, they must be used within an hour to work effectively.
- Unused sachets have to be stored in a vacuumed packed master bag.

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