



# Food Storage Accessories 101

*A How-To Guide for Oxygen Absorbers and Mylar Bags*

Preparing and storing your own food is a cost-effective way to build your emergency food supply. Being able to pick your menu, and knowing where your food came from, is ideal - especially for people living with food sensitivities, allergies, intolerances, and picky eaters. In this guide we'll cover what you can store, how to use your oxygen absorbers and Mylar bags, and some FAQs. We recommend reading the whole guide before beginning your food storage journey.

## What Foods to Store:

For long-term food storage, you will need dry foods with very little moisture. Dried berries, dehydrated vegetables, white sugar, salt, whole wheat, flour, pasta, powdered milk, soft grains, cereals, dried beans, corn, whole spices, and rice are all great options.

The shelf-life of your items once they are sealed will vary depending on what items you're storing, but below is a quick cheat sheet with some of the most common items for long-term storage. Please note that these storage times are for items properly packaged with high quality, Total Prepare materials, and stored in a cool dry place.

Food Item	Shelf-Life
Honey / Molasses (in mason jars)	Indefinite
Wheat / Corn / Hard Grains	15 to 20 Years
Rolled Oats / Rye / Barley / Soft Grains	Up to 8 Years
White Rice	8 to 10 Years
Brown Rice	1-2 Years
Beans / Dried Vegetables	8 to 10 Years
Dried Fruit / Pasta	10 to 15 Years

## How to Use Mylar Bags and Oxygen Absorbers:

### Prep Work:

As soon as you open your oxygen absorbers they will begin working, so keep them in their original packaging until the moment you need them. Gather the following before you start:

- Oxygen absorbers
- Mylar bags
- Food for storing
- A clothing Iron, clamshell heat sealer, or hair straightener
- A length of wood longer than the diameter of your bucket (if storing food in 5 gallon bags)
- 5 Gallon buckets (Or any other hard-sided container with a tightly fitting lid)
- Gamma Seal Lids (optional but ideal. See more info in FAQs)

Fill your Mylar bags with food, leaving the bags open and a few inches of space near the top for the seal. If you are working with 5 gallon bags please see the additional notes below. Put your iron on its wool setting (medium-high) and allow it to preheat. Test your iron on a corner of a Mylar bag to be sure it is hot enough. Adjust as required. Make sure to have all your pouches ready and your iron hot before opening your oxygen absorbers.

If you will have extra oxygen absorbers, ready a mason jar and fill it with white rice to put these spare packets in. This will keep your absorbers as fresh as possible for future use. For more information on how many oxygen absorbers you will need, please visit the FAQs on the next page.

### Opening Your Oxygen Absorbers:

When everything is ready, it's time to open your oxygen absorbers. They will start working immediately so work swiftly for best results. If speed is not possible, don't stress, the process will still work.

Place your absorbers inside the Mylar bags with the food and manually remove as much air from the pouch as possible before sealing. If you have zip seal bags, seal the zip now to make heat sealing easier.

#### *For 1 Gallon Bags:*

Lay your bags on your ironing board (if using an iron) or find a way to comfortably hold them steady (if using a hair straightener). While keeping the top of your bag as smooth as possible, apply your heat. Seal the bag by running your iron across the top inch of the bag. The bag should seal very quickly if the iron is hot enough, no more than 1-2 seconds of the iron touching the Mylar. After your seal has cooled, squeeze the bag gently. If you can make small 'bubbles' or pockets of air, the bag is sealed correctly. If you notice air being squeezed out of the bag, either reseal it, or start over with a new Mylar bag. This process can be tricky at first, but stick with it!

#### *For 5 Gallon Bags:*

Use your Mylar bag to line a 5-gallon bucket before filling it and adding your oxygen absorbers. Fill the bag up to about one inch below the rim of your bucket. Rest your level, or other length of wood, across the top of your bucket, as close to the center as possible. Fold the top of the bag over your level, keeping the surface smooth. Seal the bag by running your iron across the bag, using the level as an ironing board. The bag should seal very quickly if the iron is hot enough, no more than 1-2 seconds of the iron touching the Mylar. After your seal has cooled, squeeze the bag gently. If you can make small 'bubbles' or pockets of air, the bag is sealed correctly. If you notice air being squeezed out of the bag, either reseal it, or start over with a new Mylar bag. This process can be tricky at first, but stick with it!

### Completing the Process:

The oxygen absorbers can take up to a week to activate fully, so leave your buckets unsealed to avoid creating a vacuum. Once the oxygen has been removed from the bags, you can close your buckets and pat yourself on the back. Well done! For FAQs please see the next page.



# FAQs

From Advice & Beans – A trusted preparedness blog.

## **What is an Oxygen Absorber?**

An oxygen absorber is a small packet of material used to prolong the shelf life of food. They are used in food packaging to prevent food colour change, to stop oils in foods from becoming rancid, and to retard the growth of oxygen-using aerobic microorganisms such as fungi.

The active ingredient is an iron oxide powder, which when it chemically reacts (ie. rusts) removes oxygen from the atmosphere.

## **How many oxygen absorbers should I use?**

For 1-gallon bags, you should use 1-2 300cc oxygen absorbers. For 5-gallon bags you should use 5-7 300cc oxygen absorbers or 1 2000cc oxygen absorber. You should adjust this number up a little bit if you are storing less dense foods, such as pasta or some lentils, because the bags will contain more air even when full in comparison to very dense foods such as rice or wheat.

## **How do I know when an oxygen absorber is working?**

The most obvious sign an oxygen absorber is working is that it gets warm. When continuously exposed to oxygen, some can get so hot as to be uncomfortable to touch, and will often form condensation on the inside of the outer package.

## **How do I know when an oxygen absorber is used up or no good?**

This is one of the most frequently asked questions we get. The easiest way to tell if an oxygen absorber is good is to pinch the packet. If it feels 'soft' or powdery, the iron oxide powder is still in its original state and it is good. If it feels 'hard' or like a solid wafer in the packet, it is completely spent and should be replaced.

## **How long should it take for my absorber to remove all the air from my bag?**

Some conditions are better than others for the speed at which an oxygen absorber works. For example, in a very dry climate, it might take up to a week for an absorber to fully activate. In a warm, humid climate it might take only 48 hours.

## **Why don't some absorbers have the little pink pill in the pack?**

This is another very common question. There are two main reasons. The first is it adds to the cost of the product. The second is that the pill doesn't really tell you what you think it does. The pill (it's official name is an Oxygen Indicator Tablet) only tells you that there is one good oxygen absorber in the pack, not that the entire pack is good. For example, if only 1 oxygen absorber in a pack is good and 49 are bad, the pill will still show pink. If the packets have been exposed to oxygen and 90% of their absorbing capacity is used up and only 10% remains, the pill will still show pink.

It is infinitely preferable that you use the 'pinch method' above to determine whether your absorbers are good, not an indicator tablet.

### **What is a Gamma Seal Lid and why should I use them?**

Gamma seal lids are an ingenious food storage accessory, ideal for use with 5-7 gallon buckets. They consist of two parts: a gasket-lined outer ring that fits snugly on the edge of the bucket, and a screw-in central cap that allows quick and easy access to your bucket. These lids provide an airtight, secure seal for your bucket, while still allowing you to get to its contents whenever you want. Unlike some secure lids, gamma seals can be opened and closed numerous times without effecting its sealing capabilities.

### **So what's the history behind the pink pill?**

The original seller of oxygen absorbers in the US for long-term food storage included these in the packaging. Interestingly, for them to get the pill into the packaging requires opening vacuum-sealed master bags, dropping in a pill, and resealing the pack. Thus, the factory-sealed packs we sell have been exposed to less air than the packs that have pills in them, making them more likely to be usable, not less.

### **Do I need to use oxygen absorbers with everything I store?**

Most foods will benefit in longevity when using oxygen absorbers. However, they are unnecessary when storing sugar or salt. In some cases, using an absorber with these foods will cause significant clumping, although it won't harm them otherwise. Also, note that some foods may not store well for long periods of time no matter the method used (for example flour, yeast and some spices).

### **I ordered a lot of Oxygen Absorbers but I'm not going to use that many. What should I do?**

The easiest way I've found to store oxygen absorbers is to use a small mason jar with a gasketed lid. You'll know you have a good seal because the absorbers will pull the pop-top down. Try to use the smallest jar possible to minimize the work the absorbers you are storing need to do to clear the jar. You can also re-vacuum seal the absorbers in their original or another oxygen barrier bag.

### **What is Mylar?**

BoPET (Biaxially-oriented polyethylene terephthalate) is a polyester film made from stretched polyethylene terephthalate (PET) and is used for its high tensile strength, chemical and dimensional stability, transparency, reflectivity, gas and aroma barrier properties and electrical insulation.

A variety of companies manufacture boPET and other polyester films under different brand names. In the US and Britain, the most well-known trade names are Mylar, Melinex and Hostaphan.

### **I can see pinholes of light coming through the Mylar bag, why is that?**

All foil structure Mylar bags will have small pinholes in the foil layer. There is actually a measurement, 'Pinholes per meter squared', that is part of the specification of foil bags. Pinholes affect all foil structures, from a thin 2.5mil bag to the thickest 7-8 mil bags. The other transparent layers of the bag keep the integrity of these bags, and it is only very rarely (less than 1/100th of 1%) an actual 'pinhole puncture'.

### **Why don't my bags get hard when I use an oxygen absorber?**

This is our third most common question. While there will be some compression of the Mylar bag after sealing due to the oxygen absorber, an absorber is only removing the 20% of the atmosphere in the bag that is oxygen, leaving the 80% that is nitrogen intact. Also, when sealing bags make sure you remove as much of the 'headspace' as you can; this is the area at the top of the bag you seal. Even a little headspace can use up much of the power of the oxygen absorber.