

# How To Seal Mylar Oxygen Barrier Bags with an Iron

## What you need

I'm going to assume you know what food stuff to get and where to get it. If you're not sure, we have some lists that will give you a good idea of what you'll want.

**Buckets** – There are various sources and ideals about buckets. Many people secure used food grade bucket from their local grocery or bakery. You will want to wash those bucket out with soap and water. I tend to buy new buckets from Lowe's or Home Depot just because I don't want to wash them out. You can also find these buckets at Wal-mart or any home improvement store. As of right now, you can get a new 5 gallon bucket and the good heavy duty gasketed lid at Home Depot for under \$4. You can also purchase these buckets online at places like U.S. Plastic, but the shipping may be cost prohibitive.

**Lids** – There are several different types of lids. There are simple lids that just snap on. There are also Gamma seal lids that are air tight and easy to remove. I use lids with gaskets and the little tabs that need to be cut to remove the lid (like to the tamper evidence quality of these lids). Home Depot sells both types of lids. For long term storage, get the heavier gasketed lid.

**Mylar bags** – Whether you have new or used buckets, food grade or not food grade buckets, it's a wise idea to store your food in something that will be a barrier between the food and the bucket. Buckets themselves are not an oxygen barrier. You can purchase Mylar bags in various dimensions and thicknesses. We sell the large (30" x 20") 5 mil bags which is what most people use when storing food in 5 or 6 gallon buckets. We also sell a large (30" x 20") 7.5 mil bag. You would use these thicker mylar bags if you were not going to put the bag inside of a bucket (say you were going to put several bags into a heavy duty barrel or oddly shaped container). The mylar bags come in many sizes. Another very popular size is the 1 gallon size. These are great for packaging smaller amounts of food – you can put rice, beans, spices, dehydrated vegetables all into one bucket.

**Oxygen Absorbers** – You need to take as much oxygen out of the bags as possible. It kills any beasties who may be in certain foods and helps the food last much longer. How many of what size oxygen absorber to use is determined by the size of the bag and what you're putting in it. For the 1 gallon size mylar bag, use one 300cc oxygen absorber. If you have extra 500cc absorbers, it won't hurt anything to use them in the 1 gallon size mylar bag. For a 5 gallon bucket of wheat, rice, lentils or other fairly compact food, 1500cc's of oxygen absorber is the recommended amount. For a 6 gallon bucket or for a 5 gallon bucket of food that has more air (like pasta spirals or shells or elbow macaroni) you will want to use 2000cc of oxygen absorbers. It does not matter if you get to the 1500cc by putting in 2 of the 750 cc ones, or 3 of the 500cc ones or 5 of the 300cc ones.



Oxygen absorbers come sealed in a plastic bag. When you open them, you need to put them in an airtight container (duh) while waiting to use them (use a glass container just a little bigger than the absorbers, not way bigger).

**Permanent Marker** – you need a felt tip permanent marker to write on the Mylar bags and the buckets.

**Iron** – This is a standard clothes iron that you likely already own. Use the WOOL setting as it is the hottest setting (360-400 degrees F. – you want to be as close to 400\* as possible. That is why a FoodSaver or SealAMeal vacuum sealer WILL NOT WORK.) A cordless iron will not work for this as it can't hold the high temperature needed long enough before needing to be recharged. Use a corded iron.

**Scrap wood** – A scrap pieces of lumber (or any hard work surface that will not be hurt by high heat) is needed to seal the Mylar bags. (You can also use an aluminum/metal level as seen in the youtube video at the end of the article.)

**Bucket lid opener** (Optional) – Depending the bucket lid you use, you may want have a opener. They come in metal and plastic. Paint departments always carry at least one kind, usually the plastic kind.

**Rubber Mallet** (important) – It is virtually impossible to get a lid on a bucket securely without a rubber mallet. A regular hammer can damage the lid and make it unusable. But with a rubber mallet you can beat the lids vigorously and it won't hurt them. And it's kind of fun.

**Desiccant** (Optional) – Some folks use desiccant and some don't. I've used it in the past, but I didn't use it on this round of storage.



Here's a view of a typical Sunday afternoon with bulk food and buckets.

**How to store food in Small Bags** They are very handy in size. Instructions on storing food in large bags follows this section.

The first thing I do is write on the empty bag. I record some of the same information I write on the bucket later.

This includes:

- What food is inside
- Where I bought the food (in case there's a recall, etc.)
- The date I stored it
- The initials of who stored it (plan on pre-placing certain buckets at family and friends houses)
- What else I put in the bag – for instance, I put 4 Oxygen absorbers in this bag of rice.

Place the bag in a clean bucket and have someone hold one side of the bag against the edge of the bucket. Either pour or scoop the material inside the bag. Since we used a clean bucket, take the part you spilled and put it in the bag.

Fill the bag as shown to about 4 or 5 inches from the top.

Shake the bag to settle the material. Carefully fold the excess Mylar over so that you can lay the bag on your work surface.



Carefully unfold the flap that we just made and lay it on a your scrap wood.

Using an iron on the "Wool" setting (very hot) I iron one half of the Mylar bag. At this point, pick the bag up and insert the Oxygen absorbers through the opening.

Then I fold the bag back up trying to squeeze any excess air in the bag out.



Then put the flap back on the board and iron the rest of the bag.



When the bag is completely sealed it will look like this. The bag does not hurt, stain, stink or do anything else bad to the iron, so feel free to use the family iron.

Please be careful in handling the sealed edge of the bag because it's hot after you have sealed it (sorry – had to say it).



I generally fit 4 or 5 of these bags in each bucket depending on how much material I put in each bag. This picture shows the full bucket.

## How to store food in Large Bags



There are a few differences when using the large bags. This picture shows how the empty bag looks when inserted into the 5 gallon bucket.

As you can tell, there is plenty of Mylar material left over for sealing the bag.

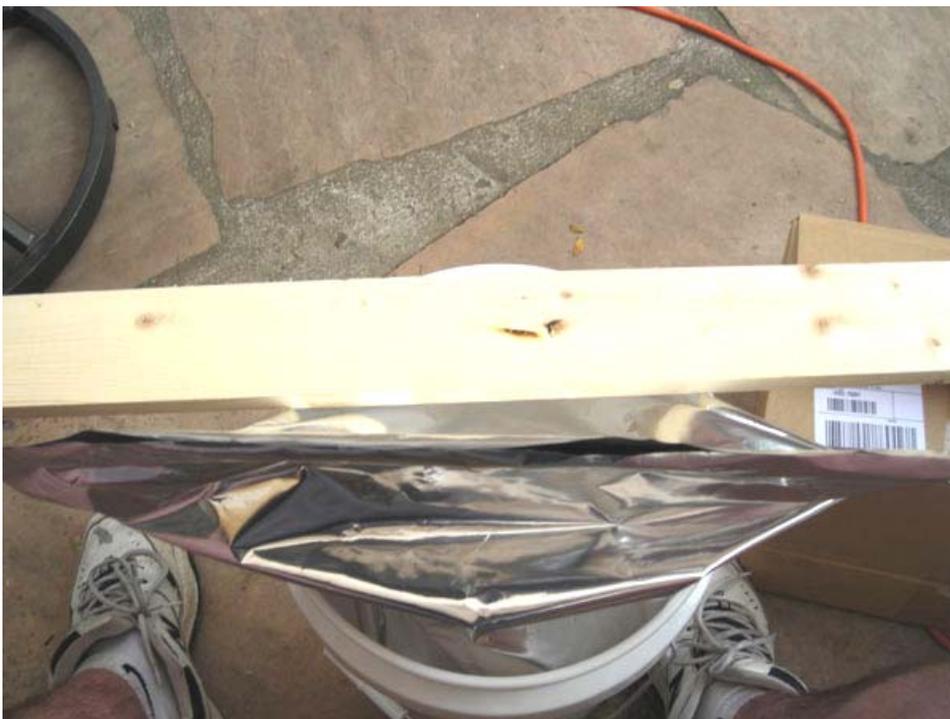


This picture shows 18 pounds of Spaghetti Pasta from Sam's Club. These easily fit into the bag and bucket.

While you can leave the pasta in the bag it comes in, it makes way more air space in the bucket. This extra air means you need more oxygen absorbers to remove the air. On the plus side of leaving the pasta in it's plastic bag, it protects the mylar from the sharp edges of some pasta.

We recommend cutting open the end of each bag at least partially to make it easy for the air to be removed from the bag. Whenever packaging

up foods with a high residual air volume like this be sure to use a 2000cc oxygen absorber (if you have a bag of the 750cc oxygen absorbers, just use 3 of those and all will be good).



The process and philosophy for sealing the large bags is a little different than the small bags.

This picture shows the board I use and the bag after it's been flattened out by its seams.

You can put your Oxygen absorbers in with the food at this point or you can seal half or  $\frac{3}{4}$ 's of the bag, then add the oxygen absorbers, squish out as much air as possible then finish the rest of the sealing process.



Different folks do different things here.

I place the edge of the Mylar bag on the board, squeeze out as much air as possible, and wrap it one turn then put the board down on the top of the bucket.

Do not wrap it around again because you want the board to be directly behind the layer of bag you're trying to seal.

Seal fairly close to the outer edge of the mylar bag. Then once you open the bag, there is still enough mylar left in case you want to re-seal the bag.

Here is the seal on the bag. You'll notice that the seal is not next to the food stuff like we sealed the smaller bags. Since the large bags likely hold more food then you'll need if opened, we want to seal the bag close to the outside edge. That means, when you open this bag later, you will need to cut the sealed portion of the bag away. You may then reseal the bag further down if needed.





Use a rubber mallet to seat the bucket lid.

If you don't have a rubber mallet, you can use a regular hammer and a board. Do NOT hit the plastic bucket lid with the regular hammer! Place the board on top of the bucket and start hammering the board.

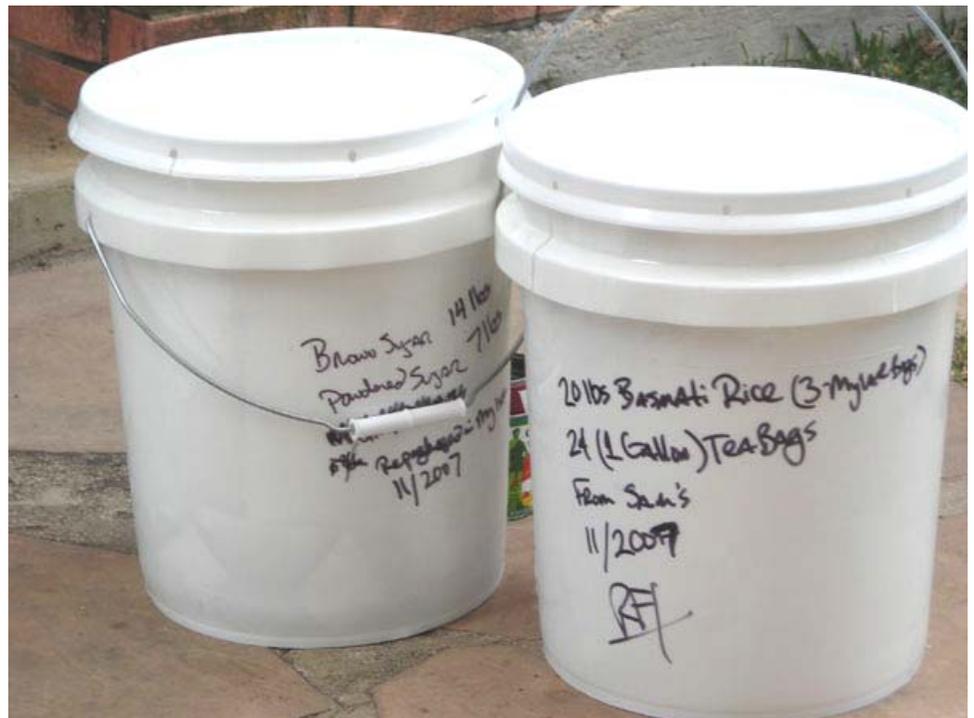
Rubber mallets are under \$5. Get a rubber mallet.

## Results

I hate breaking the seals on buckets until I really need what's inside. Therefore, I write a short story on the outside of the bucket.

The notes include:

- What food is inside
- How much by weight (so I can visually inventory)
- What its stored in (i.e. one big bag, multiple smaller bags or original packaging)
- Where I bought the food (in case there's a recall, etc.)
- The date I stored it
- The initials of who stored it (I plan on pre-placing certain buckets at family and friend's houses)



Here's a picture of the afternoon's work. This took about 2.5 hours with the help of a 6 and 4 year old. (Also note, you will make a mess when storing flour with the help of small children).

As you can see I ran out of buckets for the last few bags. This picture will give those just starting an idea of the volume certain amounts of food take up on buckets. Here's what's shown in the buckets:

- 75 pounds of bread flour
- 50 pounds of sugar
- 7 pounds of powdered sugar
- 20 pounds of basmati rice
- 18 pounds of spaghetti pasta
- 16 pounds of brown sugar
- 24 – one gallon tea bags

### Storing the buckets

As with most items we keep, these buckets like a cool dry place. I've read not to stack them over three buckets high. These lids that I use are pretty tough but I'll only stack higher than three buckets if the contents are very light.



I hope this helps clarify this process for a lot of folks just getting started. Seeing pictures generally helps me a little better than the written word alone.

Thanks goes to a Mr. Freeman (if that is indeed his name) who took the time to chronicle his sealing up mylar bags, with photos, and post them on the internet in late 2007. I have only made slight updates or alterations to his post.

This is a very good youtube video of a gentleman sealing his mylar bags with an iron. He doesn't show putting in the oxygen absorbers but he put 1500cc oxy absorbers into the mylar bags with the food before doing the sealing process. This gentleman uses an aluminum level (the side with the grooves) instead of the board used in the process above. Either will work.

<http://www.youtube.com/watch?v=fk9b0dAtJ80> (you will have to copy the link and paste it into your browser as it is not a working link)