



Your Guide to Oxygen Absorbers

Oxygen Absorbers are rated by how many cubic centimeters, or ccs, of oxygen they can absorb. They are safe to include in packages of food and help ward off one of the enemies of food storage, oxygen.

Oxygen Absorbers work by using powdered iron to absorb oxygen in their environment and are FDA approved. Because they absorb oxygen, they must be stored in a sealed environment, and that's how they are packaged when you buy them. If you only use a few of these absorbers, you will have to quickly package them in something airtight. It doesn't need to be expensive – a solidly closed canning jar works just fine.

When a pack is activated, it will feel warm to the touch, similar to widely available hand-warmers. Once it has run its course, the packet will become firm and crunchy. A new packet is pliable.

The amount of absorbers needed in any particular container of food varies based on how full the container is and how tightly packed the contents are. We've all seen the experiment where a jar is filled with rocks, then pebbles, and then sand. There will be far more air (oxygen) in the spaces between the large rocks than between the pebbles and, especially, the grains of sand. The same is true for foods. Larger food pieces, such as elbow macaroni and beans, will have a lot more air space around them than more granular foods such as dehydrated milk and cornmeal. This extra air means you need more oxygen absorbers.

To calculate the perfect amount of oxygen absorber for a specific container of food requires a good deal of calculating, but this chart gives a general idea of how many absorbers you will need for a variety of containers and food sizes:

Container Size	Absorber Size	Space
Pint	20 cc	30 cubic inches
	30 cc	60 cubic inches
Quart or liter	50 cc	120 cubic inches
1 Gallon	100 cc	250 cubic inches
5-6 Gallons	500 cc	1250 cubic inches
#10 Can	200-300 cc	Closely packed (salt, rice)
#10 Can	300-500 cc	Loosely packed (beans, pasta)
5 Gallon bucket	700-900 cc	Closely packed (flour, grains)
5 Gallon bucket	1000-1200 cc	Loosely packed (large seeds)

You can combine absorbers to reach the amount you need. Five 100 cc packets will do the job just as well as one 500 cc packet, and may be easier to find at online stores, such as Amazon. Remember: The more closely packed the contents, the less air there is and the fewer ccs of oxygen absorbers you need.

Finally, some foods (such as sugar and drink mixes) need some moisture to keep from turning into solid bricks. Using extra oxygen absorbers can cause these foods to become very brick-like. Do not use absorbers with either of these.