Vacuum Packing

Fact Sheet and Hygiene Rating Improver

No. 11

Vacuum-packing is a popular way of extending the shelf-life of food products without affecting the quality. It is a very good way of preventing food spoilage, but it can create conditions which may lead to growth of anaerobic bacteria (bacteria that grow better without oxygen), such as Clostridium botulinum. This organism can multiply and produce toxin at temperatures as low as 3°C. The toxin produced is heat-stable which means it will not be removed by normal cooking. Poisoning from Clostridium botulinum toxin is fatal in 20-50% of cases, with early diagnosis and treatment essential to survival.

It is imperative, therefore, that this organism is controlled by correct storage temperatures and the application of, and adherence to, an appropriate use-by date. Vacuum-packed products should be assigned a shelf-life of not more than 10 days, when stored between 3-8°C. Longer shelf-lives can be achieved by guaranteeing storage below 3°C (e.g. by freezing the product) or other preservation methods such as high salt content or low pH, but this should be ascertained on a product-by-product basis through research or testing.

For Businesses Using a Vacuum Packing Machine

You need to implement a HACCP-based food safety management system to control the particular hazards associated with the use of the vacuum packing machine:

The following issues should be covered in the HACCP plan:

- The shelf-life assigned to vac-packed food stored between 3-8°C should be not more than 10 days, unless other preservation methods are used.
- Raw and cooked foods must **not** be vacuum-packed on the same machine.
- Poor quality foods should not be vacuum-packed in an attempt to extend the shelf-life. Vacuum packing cannot improve the safety or quality of a food.
- You must ensure that the vacuum-packing machine is in good working order and has is regularly checked and maintained.
- Vacuum-packing a product more than once should be avoided, as it becomes impossible to accurately assess its shelf-life.
- You must ensure that every product is properly sealed in order to maintain the correct atmosphere inside the packet. You should carry out regular checks on the effectiveness of the sealing of the machine. You can do this by vacuum packing a thick damp cloth. Place it in a bowl of water and check that no air bubbles are visible.
- Clear use-by dates should be indicated, and if this relies on correct storage temperature this too must be stated near the date mark. Labelling must comply with current food labelling regulations.

It is particularly important not to use vacuum-packed food past its use-by date. It is quite possible that out-of-date food that looks and smells acceptable could be unsafe for consumption.

See our Food Safety Management Fact Sheet No. 6 for more detailed information on developing a HACCP Plan.

The Food Standards Agency has also produced a factsheet for businesses:
www.food.gov.uk/multimedia/pdfs/publication/vacpack0708.pdf

FOOD HYGIENE RATING

STEP	IMPROVE MY RATING	Done
1	Do I have a specific documented HACCP Procedure for use of the Vacuum Packing Machine?	
2	Do I have a shelf life of 10 days? or less for vac-packed food stored chilled between 3-8°C?	
3	If I have a shelf life of more than 10 days I have carried out specific laboratory testing of the make up of the product, e.g. ph, water activity, etc.	
4	I have devised a test to ensure the effectiveness of the seal of the packet.	
5	Once vacuum packed the product is stored under refrigeration.	
6	I have separate vacuum packing machines for raw and cooked food.	

For more food safe factsheets visit **www.runnymede.gov.uk**