





Recommended Frying Practices




Temperature Control

Uncontrolled temperatures will adversely affect your fried foods. Costs will increase due to rapid shortening/oil breakdown, high absorption, and inconsistent/unsatisfactory fried foods. The following points are a guide to proper temperature control:

 Thermostat	 Holding Temp.	 Start Up	 Frying Temp.
Verify the accuracy of the fryer's thermostat with a frying thermometer, on a daily basis. Both food quality and shortening productivity are maximized at 350°F (175°C) frying temperature. Every 25°F over 350°F (175°C) reduces frylife by approximately 30%.	Frying oils will deteriorate faster when a fryer is left at a high temperature without product being fried. When not in constant use, turn down the fryer to 250°F (120°C).	Start fryers at a low temperature 225°F (105°C), slowly raising temperature in stages for a slow heat. When the shortening is melted, the temperature can be increased to a high temperature. Achieving high temperature too quickly will result in scorching. Ensure the shortening is in a liquid state before increasing the temperature to a high temperature.	Too low a temp. will result in off color/greasy product w/increased frying time. Too high a temp. will overbrown the outside/undercook the inside. Allow time to recover correct frying temp. before adding more food. Overloading a fry basket will drop the temp. and result in lost frying time/poor quality. Follow this guide: 0.45kg (1 lb.) of food to 4.5kg (10 lbs.) shortening.






Fryer Cleaning & Care

Proper care of the fryer and the shortening/oil will help to extend the frying life and improve overall food quality. The following suggestions will help maintain your fryer and shortening/oil:

 Skimming	 Filter	 Storage	 Clean
Skimming the shortening/oil regularly will help by removing any small pieces of food or excess breading from the fryer. These pieces will blacken and deposit on other products fried in the oil, if skimming is not done when necessary.	Filter at least once daily to remove all sediment accumulated in the fryer. For best results allow the shortening/oil to cool to 180°F - 225°F (80°C - 110°C) before filtering. Disposable filters are recommended over washable filters. With washable filters, if soap is not removed/dried, shortening/oil may become damaged. Do not reuse disposable filters.	If shortening/oil is not to be used for a length of time (i.e. over-night or weekend shutdown), filter the shortening/oil, cool the oil and cover the fryer with a metal lid, (exposure to air is a factor in shortening/oil breakdown) keeping the shortening/oil as cool as possible.	Clean fryer once a week using cleaner developed for fryer use. Remove all sediment and rinse thoroughly. Soap residue is very harmful to shortening/oil, so thoroughly rinse the fryer with water & a small amount of vinegar to neutralize any soap. Rinse again and dry thoroughly. Refill the fryer to the full level, adding fresh shortening/oil if needed, and top off fryer during use.







Additional Points to Remember

Here are some additional factors to consider in order to achieve optimal frying conditions and results:

 Shortening Turnover	 Salt and Seasonings	 Excessive Foaming	 Breaded Products	 Copper, Brass or Iron
Shortening turnover is the amount of shortening/oil added daily to "top off" the fryers. A good volume of food through the fryer means high turnover, which will significantly reduce the amount of shortening/oil that will be discarded.	Salt and seasonings will shorten the frying life of shortening/oil. Do not salt or season food near the fryers. When introduced into the shortening/oil, they speed up the rate of "breakdown" causing foaming, dark color, and off flavors.	Excessive foaming may be an indication of shortening/oil breakdown. The shortening/oil should be discarded and the fryer thoroughly cleaned. Refer to section on cleaning for more detail.	Breaded products should be shaken away from the fryer to remove any loose or excess breading. All products to be fried should be as dry as possible. Water breaks down shortening/oil and can cause excessive foaming.	Copper, brass or iron utensils should be kept away from the shortening/oil as they will promote "breakdown" and result in less optimal frying conditions.

Deep Frying: Trouble Shooting Guide



Problems/Symptoms		Possible Causes
<p>Shortening/Oil Darkens Excessively or Rapidly</p>	 <p>Darkens or blackens prematurely, takes on a "tar-like" appearance</p>	<ol style="list-style-type: none"> 1. Overheating the shortening/oil (check thermostat). 2. Soaps from the cleaning operation entering the shortening/oil system. 3. Poor filtration practices that allow crumb build-up. 4. The shortening/oil is breaking down due to initial poor quality or abuse. 5. Hot spots in the heating system (uneven temperature in the fryer). 6. Low frying volume and low turnover. 7. Temperature too high (possibly faulty thermostat, check with a frying thermometer).
<p>Smoking Shortening/Oil</p>	 <p>Smoke visibly coming off of shortening.</p>	<ol style="list-style-type: none"> 1. Overheating the shortening/oil (check thermostat). 2. Poor filtration practices that allow crumb build-up. 3. The shortening/oil is breaking down due to initial poor quality or abuse. 4. Hot spots in the heating system. 5. Soaps from the cleaning operation entered the shortening/oil system. 6. Drip-back from the exhaust system. 7. Shortening/oil has exceeded its frylife. 8. Temperature too high (possibly faulty thermostat, check with a frying thermometer). 9. Low frying volume and low turnover.
<p>Foods Do Not Brown Properly</p>	 <p>Foods not cooking/browning properly in expected time.</p>	<ol style="list-style-type: none"> 1. Temperature of shortening/oil is too low (possible faulty thermostat, check with a frying thermometer). 2. Overloading the fry basket. 3. Frying temperature recovery is too slow. 4. Excessive foam build-up as shortening is breaking down. 5. Short frying time.
<p>Shortening Oil Foams Excessively</p>	 <p>Fine white/yellowish bubbles build up on the surface of fat as frying proceeds.</p>	<ol style="list-style-type: none"> 1. Temperature of shortening/oil is too low (possible faulty thermostat, check with a frying thermometer). 2. Failure to reduce heat in slack periods. 3. Hot spots in the heating system. 4. Insufficient skimming and/or filtering. 5. The shortening/oil is breaking down due to initial poor quality or abuse. 6. Soap and/or gum formation not removed entirely during the cleaning operation. 7. Brass, copper or iron utensils used in fryer. 8. Low frying volume and low turnover. 9. Frozen product left out and got damp.
<p>Greasy Food</p>	 <p>Shortening/oil drips from finished product or shortening/oil in fryer used up too rapidly.</p>	<ol style="list-style-type: none"> 1. Temperature of shortening/oil is too low (possible faulty thermostat, check with a frying thermometer). 2. Overloading the fry basket. 3. Frying temperature recovery is too slow. 4. Excessive foam build-up as shortening is breaking down. 5. Short frying time.
<p>Objectionable Odor or Flavor of Shortening/Oil</p>	 <p>Fryer odor is unappealing and the shortening/oil has an off flavor.</p>	<ol style="list-style-type: none"> 1. Overheating the shortening/oil. 2. Poor filtration practices that allow crumb build-up. 3. Drip-back from the exhaust system. 4. Inadequate cleaning/rinsing of equipment. 5. Defective equipment. 6. The shortening/oil has broken down due to initial poor quality or abuse. 7. Poor quality of food being fried.

Bunge strongly recommends every deep fry station have and use a deep fryer thermometer and use a fine mesh skimmer on a regular basis.