



# **MASHKIT INSTRUCTIONS**

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The Brupaks range of 'mashkits' has been designed to appeal to both the beginner to mashing and the experienced brewer alike. The kits range from straightforward Bitters and Stouts to the more challenging Weissbiers and Pilsners, which involve multi-temperature mashing and controlled fermentation.

Each kit contains authentic ingredients of the highest quality. In particular the German and Belgian recipes include malts, sugars and hops imported directly from those countries to ensure that the beers are as true to type as possible. All lager kits contain a bottom-fermenting yeast and those for wheat beers a true wheat beer yeast.

Brupaks is a supplier of specialist brewing equipment and ingredients including mash tuns, boilers, hop filters, wort coolers, hops, grains, liquid yeast etc. Ask your local retailer about our products or visit our website at [www.brupaks.com](http://www.brupaks.com).

## INSTRUCTIONS

### Mashing

Mashing is the process that converts the starches contained in the malt to fermentable and non-fermentable sugars. Most British beer styles are produced using the straightforward single temperature infusion mash. Many Continental beers, however, benefit from two or three different temperatures to produce the required wort. *All of our mashkits can be produced using a single temperature mash if preferred.*

Below are the mashing methods recommended for our mashkits. Please see your kit label for the correct one to use.

#### 1. Single Temperature Infusion

There are numerous ingenious mashing vessels used by home brewers, the most popular being the 'coolbox type' insulated vessel supplied by Brupaks. All mash tuns must have these basic attributes: good insulation and the means of separating the sweet wort from the spent grains. Whatever mash tun you are using the method is basically the same. Use about 2.5 litres of water per kilo of grain. Heat the water to 75 - 80°C. Add the grains, ensuring a good mix with no lumps. Stir thoroughly and check the temperature, adjusting if necessary with small amounts of boiling or cold water to achieve 64 - 67°C. Maintain the mash temperature within these limits for 90 minutes.

Meanwhile heat the sparging (rinsing) water equal to the final volume of the beer to 80°C. Rinse the grains using a jug, watering can etc. slowly so that it takes 45 - 60 minutes to collect the final volume.

#### 2. Two Temperature Infusion

This mash schedule is for malts with a high protein content, particularly wheat malt, or where the clarity of the beer is paramount, e.g. Pilsners.

If using a mash tun without a heater, heat the mashing water to 60 - 65°C. This mash should be much thicker than for a single infusion mash (about 2 litres per kilo of grain). Hold the mash temperature around 50°C for 30 minutes then add sufficient boiling to raise to 64 - 67°C and maintain for 90 minutes.

Sparging should then proceed as above.

#### 3. Three Temperature Infusion

Proceed as for the two temperature mash except that after 90 minutes at 64 - 67°C, add more boiling water to achieve 70°C for 10 minutes. This final rest ensures that every trace of starch has been converted to sugar. Sparging can then be conducted as normal.

### Boiling

The wort should be boiled vigorously with the bittering hops for at least 60 minutes (preferably 90 minutes) with any aroma hops added for the last 5 minutes. Cool the wort to yeast pitching temperature rapidly to prevent oxidation and reduce the possibility of bacterial infection (Brupaks supplies wort chillers to achieve this in just 20 minutes). Brewing sugar when provided should be dissolved in the hot wort before boiling point is reached.

### Fermentation

This is the stage where the sugars contained in the wort are converted to alcohol and Co<sup>2</sup>. There are four fermentation procedures recommended for Brupaks Mashkits. Please see kit label for the correct one to use.

#### Fermentation 1.

Pitch yeast at 18 - 20°C. Ferment in a primary vessel at this temperature for 3 days. Rack into a closed secondary fermenter fitted with an airlock. After 3 days add finings if desired. When clear rack into primed bottles or draught containers.

#### Fermentation 2.

Pitch yeast at 13 - 15°C. Ferment in a primary vessel at this temperature for 7 - 10 days (closed vessel with airlock recommended). Rack into a another closed secondary fermenter fitted with an airlock. After 3 days add finings if desired. When clear rack into primed bottles or draught containers.

#### Fermentation 3.

Pitch yeast at 15 - 17°C. Ferment in a primary vessel at this temperature for 4 days. Rack into a closed secondary fermenter fitted with an airlock and leave in a cool place (10 - 13°C). After 10 days add finings if desired. When clear rack into primed bottles or draught containers.

#### Fermentation 4.

Pitch yeast at 18 - 20°C. Ferment in a primary vessel at this temperature for 5 days. Rack into a closed secondary fermenter fitted with an airlock. Keep at room temperature for 10 - 14 days. Add finings if desired. When clear rack into primed bottles or draught containers.