



# *Killarney Red*

## *Irish Ale*

### **Stovetop Beer Kit**

Killarney Red is an Irish red ale: an easy-drinking pint with a reddish-copper colour, a smooth, malt-forward character and initial hints of toffee and caramel, a slightly biscuity palate and a medium-dry finish with a hint of roasty notes. It has a medium body and a restrained yet typically British hop character.

- Batch size: 20 litres
- OG: 1.044
- FG: 1.010
- ABV: about 4.3 % before priming; about 4.5% after bottle conditioning
- IBU: 20-24 (exact value depending on boil times, pot sizes, altitude and the vigour of the boil)

Note that these are estimated values; your actual results may vary slightly.

#### **What's in the box:**

- 1 pouch of crushed malts (to be steeped in hot water)
- 1 pouch of malt extract blend, marked **MALT EXTRACT 1** (to be added to the boil)
- 2 packets of hops (to be added to the boil)
- 1 pouch of malt extract blend, marked **MALT EXTRACT 2** (to be added at flame-out)
- 1 pouch of brew blend (to be added to the fermenter)
- 1 packet of yeast
- 1 packet of yeast nutrient
- 1 packet of beer finings

#### **You will need the following equipment (not included):**

- Grain steeping bag: while you can forego the use of a grain bag (see the notes on how to do this at the end of this manual) using one is highly recommended, since it makes the brewing process much easier.
- 8-10L pot (a stainless steel pasta, casserole or pressure cooker pot will do nicely);
- Thermometer with a scale of 0-100°C;
- Brewing paddle or spoon (note: do not use a wooden spoon unless it has never been used for cooking);
- Optional: a sieve or colander;
- Optional: hydrometer.

A stainless steel pot is ideal. Aluminium pots will do as well but may harbour traces of oils and/or fats due to the fact that the inner surface of an aluminium pot may be slightly pitted. Make sure your pot is as clean as you can possibly make it, then rinse thoroughly. Do not use a wooden spoon, as the pores in the wood may contain oils, fats or other contaminants and may provide growth sites for microbes.

**PLEASE NOTE:** Always let the wort come off the boil before adding hops or malt extracts! Failure to do so may trigger a flash boil-over! As soon as the wort is off the boil, add the ingredients immediately and

return the pot to heat right away. Do not let the hot wort stand between brewing steps, as this may skew the level of hop bitterness.

**Before you start:**

Hops have to be boiled in wort in order to release their bitterness. The amount of bitterness that the hops impart to the beer is a factor of both the duration and the temperature of the boil. Unfortunately, the temperature of the boil is a factor of altitude. In Durban, at sea level, water boils at about 100°C, while in Johannesburg, at an altitude of about 1750 metres, it boils at just over 94°C. That means that a brewer in Durban will produce a more bitter beer than a brewer in Johannesburg who uses the same amount of hops boiled for the same time.

Therefore, the time during which you must boil the wort for this beer should be chosen as follows:

Altitude	0-500m	500-1200m	Over 1200m
<b>Total boil time</b>	20 min.	25 min.	30 min.
<b>Hop 1</b>	Add at start of boil (i.e. boil for 20 minutes)	Add at start of boil (i.e. boil for 25 minutes)	Add at start of boil (i.e. boil for 30 minutes)
<b>Hop 2</b>	Add 10 minutes after start of boil (i.e. boil for 10 minutes)	Add 12 minutes after start of boil (i.e. boil for 12 minutes)	Add 15 minutes after start of boil (i.e. boil for 1 minutes)

**How to brew:**

1. Thoroughly clean all equipment used to remove any trace of oils, fats and other food/cooking residues, using a good quality brewer's detergent.
2. Put 6 litres of warm water (around 65°C) into your brewing pot. Put the crushed grain into a grain steeping bag and immerse. Cover and let steep for 30 minutes, swirling the bag around occasionally to improve flavour and colour extraction. Remove, let drain and discard. *Do not squeeze the bag.* Add the contents of the pouch marked MALT EXTRACT 1 and stir to dissolve. Some small lumps may remain but this is not a problem; they will dissolve during the brewing process when the wort starts to heat up.
3. Bring the wort to the boil. Watch out for boil-overs! Once the wort has reached boiling point, remove the pot from heat until the wort has come off the boil entirely. Add the contents of the first packet of hops (marked "Hop 1") and immediately return the pot to heat until the wort has come to the boil again. Keep a close eye on the wort; it may boil over quickly at this point.
4. Let the wort boil uncovered for the duration of the boil as per the time table above, adding the second packet of hops (marked "Hop 2") at the scheduled time. Maintain a rolling boil, but do not let it boil over. The danger of boil-overs will be greatly reduced as soon as the foam disappears, which should take no more than a few minutes. **Do not cover the pot until the boil is complete.**
5. When the boil is complete as per the schedule above, remove the pot from the heat source and *wait for the wort to come completely off the boil.* Then add the contents of the pouch marked **MALT EXTRACT 2** and stir to dissolve.



6. Cover the pot and chill the wort as quickly as possible. One way to do this is to place your brew pot **with the lid on** in the kitchen sink (provided it fits) and run cold water around it. Another option is to place the brew pot in a tub or sink filled with cold water and ice or cooler bricks. The quicker the wort cools, the less additional bitterness the hops will produce, so do not delay this step or you will get an overly bitter beer.



7. Once the wort has fully cooled, let it stand for half an hour to an hour to let the trub settle to the bottom of the pot. (You won't get more bitterness from the hops at this point once the wort has cooled down.)

8. Transfer the cool wort to a cleaned and sanitized fermenter, leaving the spent hops and the solids from the malt extract in the pot. Filtering the wort through a piece of coarse cloth may help. The rolls of blue disposable cleaning cloths from the supermarket work well. Soak the cloth in sanitizer for 10 minutes or more before use. The cloth can be placed in a (sanitized) colander or sieve, or it can be affixed to the fermenter using bulldog clips.



9. Add the contents of the bag of brew blend to the fermenter and stir to dissolve, using a sanitized stirring spoon or brewing paddle.

10. Top the fermenter up with cold water to a total volume of 20 litres. (The amount of water you will need to add in order to reach a total volume of 20 litres will depend on how much water evaporated during the boil and how much trub was left behind in the pot.) Splash the water in from some height; this will help to aerate the wort and provide some oxygen for the yeast. If you have a hydrometer and would like to take a starting gravity reading, do so now.

11. Add the yeast and the yeast nutrient. Fit an airlock and let the beer ferment (ideally between 20 and 24°C) for two weeks, or until hydrometer readings show that the fermentation is complete. Note: this beer typically ferments slower than other kit beers do. Also note that stouts sometimes may produce a lot of Krausen (foam in the fermenter) during fermentation and that dark beer styles may take quite some time to ferment out completely. Make sure the fermentation is complete (i.e. it has reached a gravity of around 1.012 that won't come down any further over the course of several days). Bottling the beer too soon will lead to foamy, over-carbonated beer.

12. Once the fermentation is complete, sprinkle the beer finings on top of the beer, distributing it evenly across the surface, optionally stirring the surface of the beer gently with a sterilized spoon or brewing paddle to disperse the finings. Do not splash. Let sit for 24-48 hours.

13. Bottle the beer in clean, sanitized bottles, using carbonation drops or priming sugar as desired. If you use priming sugar, use white table sugar and aim for about 3.5 grams of sugar per 440ml bottle, i.e. 8 grams per litre. Note that 1 gram of granulated (table) sugar is about 1/4 teaspoon (1.25 ml.) If you wish to carbonate the beer according to style, use a priming sugar calculator on the Internet (use Google, there are several) to work out the amount of sugar needed.

14. Let the beer mature for at least 4 weeks at room temperature. The beer will continue to improve over time. If brewed, bottled and stored properly it should have a shelf life of at least a year.

15. Chill the beer well. Once it is properly cool, open a bottle, pour and enjoy. Cheers!