

# Kölsch Ale

O.G. = 1.045 F.G. = 1.008-1.012 A.B.V. = 4.3%

A clean, crisp, delicately balanced beer usually with very subtle fruit flavors and aromas. Subdued maltiness throughout leads to a pleasantly refreshing tang in the finish. To the untrained taster easily mistaken for a light lager, a somewhat subtle Pilsner, or perhaps a blonde ale.

Extracts:	3¼ lbs. Pilsen - Liquid malt extract 3¼ lbs. Munich - Liquid malt extract	Hops:	1 oz. Vanguard (bittering) 1 oz. Hersbrucker (aroma)
Grains:	¼ lbs. White wheat malt ¼ lbs. Crystal 10°L	This kit also includes a disposable grain bag, a whirlfloc (irish moss) tablet, priming sugar, and the yeast options listed below.	

**WLP029 German Ale/ Kölsch Yeast (liquid):** From a small brewpub in Cologne, Germany, this yeast works great in Kölsch and Alt style beers. Good for light beers like blond and honey. Accentuates hop flavors, similar to WLP001. The slight sulfur produced during fermentation will disappear with age and leave a super clean, lager like ale.

**Attenuation: 72-78% Flocculation: Medium Optimum Fermentation Temp.: 65-69°F Alc. tolerance: Medium**

**WLP080 Cream Ale Yeast Blend (liquid):** This is a blend of ale and lager yeast strains. The strains work together to create a clean, crisp, light American lager style ale. A pleasing estery aroma may be perceived from the ale yeast contribution. Hop flavors and bitterness are slightly subdued. Slight sulfur will be produced during fermentation, from the lager yeast.

**Attenuation: 75-80% Flocculation: Medium Optimum Fermentation Temp.: 65-70°F Alc. tolerance: Medium-High**

**WLP011 European Ale Yeast (liquid):** Malty, Northern European-origin ale yeast. Low ester production, giving a clean profile. Little to no sulfur production. Low attenuation helps to contribute to the malty character.

**Attenuation: 65-70% Flocculation: Medium Optimum Fermentation Temp.: 65-70°F Alc. tolerance: Medium**

## Step by Step

1. Remove all ingredients from fridge or other storage. Fill your kettle with 2.5 gal of cold water and add heat.
2. Be sure your grains are cracked and place them in the provided bag. Suspend the grain in the water without letting it touch the bottom of the kettle. Allow to steep as your water heats, at no higher than 165°F.
3. Once your kettle reaches 165°F, remove your grains and bring the solution to a boil.
4. Once boiling, remove from heat and add your liquid malt extract, while stirring well.
5. Once the extract has dissolved, return to heat again and bring the solution (the “wort”) to an aggressive boil while being careful not to boil over (it will foam due to the “hot break”).
6. Once the hot break has settled and you have a steady boil, add your first “bittering” addition of hops. You will boil these hops for 60 minutes total.
7. After 45 minutes, add your whirlfloc (irish moss) tablet into the boil and boil for an additional 15 minutes.
8. At the end of your 60 minute boil, add your “aroma” hops and remove from heat.
9. Cool the wort as quickly as possible to 70-80°F. An ice bath works well if you don't have an immersion chiller.
10. Transfer the cooled wort to the carboy using a siphon or funnel and top off with cold water to 5 gallons.
11. Pitch the yeast into the carboy, secure with an airlock and allow to sit in a cool, dark place.
12. Once activity begins, the temperature should be held at around 65°F. Primary fermentation can last 2-3 weeks or longer. Do not bottle or transfer to secondary (optional) until final gravity is reached.
13. After you have reached your target final gravity, begin bottling:
  - a. Boil ½ cup of water and dissolve the priming sugar.
  - b. Carefully “rack” (siphon, to minimize splashing) the beer into the bottling bucket and mix in the sugar.
  - c. Bottle the beer, cap and allow to sit in a dark place at a moderate temperature. Try a bottle in 2-3 weeks to see how they are progressing. It may take 6 weeks or more before your beer reaches peak flavor.)