



May all your fermentations be Great Fermentations!

## Welcome to Helles — A Munich Helles lager from Primeval Brewing!

Simple, yet incredibly delicious! We have partnered with our friends at Primeval Brewing in Noblesville, Indiana to bring you their super drinkable Munich Helles lager, Welcome to Helles! Using Pilsen and Carahell Malts and a touch of German Magnum hops, this beer is the very definition of a quaffable German helles lager. Try brewing this one yourself, and if you get a chance, try theirs in house!

### BEER SPECS

Original Gravity:

**1.041 — 1.043 @ 65% efficiency**

**1.044 — 1.046 @ 70% efficiency**

**1.048 — 1.050 @ 75% efficiency**

Final Gravity: **1.009 — 1.013**

IBU: 16—20

SRM: 3—5

ABV%: 3.7% - 5.4%

Yield: 5 Gallons

### NOT INCLUDED IN KIT

Irish Moss (*for clarity, optional*)

Yeast

Bottle Caps (*53 caps needed*)

Priming Sugar (*5oz or 3/4 cup*)

### MASH & FERMENTATION

#### Suggested Mash Temperature:

It is suggested to follow the Hockhurz mash schedule in the “Brewer’s Notes” section to the right. However, if doing a simple single infusion mash, you might stick with a lower temperature of around 147-149F to create a light bodied beer.

#### Fermentation Schedule:

We suggest a primary fermentation of two to three weeks at 48° - 56°F. A diacetyl rest may be performed once the beer is 2/3 to 3/4 of the way to the expected final gravity by raising the beer by 8-10 degrees and holding until fermentation is complete. This is followed by a lagering phase of 1 to 2 months at 34° - 42°F. **If using Lutra Kveik Yeast**, ferment at 68-95F for 2 to 3 weeks.

### RECIPE DETAILS

8.5 lbs. Bestmalz Pilsen Malt

0.5 lbs. Carahell Malt

60 Minute Boil

0.4 oz. Magnum hops, added at the beginning of the 60 minute boil

1.0 tsp. Irish moss (*optional*), added 20 min from the end of the boil

### FERMENTABLES

### BOIL SCHEDULE

YEAST SUGGESTIONS: Omega Yeast OYL114 Bayern Lager, White Labs WLP860 Munich Helles, Saflager 34/70 Dry Yeast, or Omega Lutra Kveik Dry Yeast

**Brewer’s Notes:** Here are the brewer’s notes we were handed for this beer by the brewers themselves:

The Hockhurz mash has become the standard mashing schedule for beers brewed in Germany. Large German breweries like this method because it doesn’t require decoction and can be done in less than 2 hours. This fits well with their desire to be able to mash a new batch every 2 hours. It uses 2 different saccharification rests; one for each group of amylase enzymes. A low temperature rest favors the beta amylase and sets the fermentability of the wort. A high temperature rest favors the alpha amylase and complete the starch conversion.

The temperature steps necessary for this mash schedule can be achieved through infusions of boiling water or direct heat. If boiling water will be used the mash should be doughed in with a water to grist ratio of about 1.25 - 1.5 qt/lb. Don’t be afraid of thinning out the mash through the hot water infusions. It will become easier to handle and enzymes and gelatinization also work better in a thinner mash.

If direct heat is used aim for a mash thickness of 1.75—2.25 qt/lb. This is the mash thickness that is commonly used in Germany and it makes stirring the mash during the heating phases much easier. You should also aim for a dough-in temperature that is slightly lower than the first rest temperature since it is much easier to heat the mash than to cool it, in case the first temperature rest is not reached after dough-in.

The first rest (maltose rest) should be held at or around 145F and its length is used to control the fermentability of the wort. A good starting point for its duration is 30 min. Longer for more fermentable wort and shorter for less fermentable wort. If even higher fermentability is desired an intermediate rest at 150F can be added. Due to its large volume the mash temperature should not drop much during that rest but you may wrap the pot in blankets to stabilize the mash temp even more.

The dextrinization rest at 158-162F needs to be held until the mash is iodine negative but may be extended to 45-60 min. Many authors contribute head retention and mouthfeel benefits to extending this rest. Finally the mash may be raised to mash out temp and subsequently lautered.

