

Pilsner Urquell Authentic (clone) - Decoction - 4.5%

Czech Premium Pale Lager

Author: Østerbro Bryghus

Type: All Grain

IBU : 35 (Tinseth)
 BU/GU : 0.8
 Colour : 6 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.030
 Original Gravity : 1.044
 Final Gravity : 1.010

Fermentables (1.17 kg)

1.172 kg - Barke Pilsner 3.5 EBC (100%)

Hops (30.7 g)

90 min - 1.5 g - Magnum - 12% (10 IBU)
 20 min - 12.2 g - Saaz - 4% (17 IBU)
 10 min - 7.3 g - Saaz - 4% (7 IBU)

Hop Stand

10 min hopstand @ 80 °C
 10 min - 9.7 g - Saaz - 4% (2 IBU)

Miscellaneous

Mash - 0.05 g - Calcium Chloride (CaCl2) 33 %...
 ^ Lot # 115038
 ^ Brouwstore (NL) 055.035.0
 Mash - 0.06 g - Gypsum (CaSO4)
 ^ The Malt Miller (UK) CHE-03-004
 Mash - 1.1 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 15 min - Boil - 0.974 g - Irish Moss

Yeast

1 pkg - White Labs Pilsner Lager WLP800

01 Brouwpunt 5L (90min) (rev 4)

Batch Size : 5.6 L
 Boil Size : 8.66 L
 Post-Boil Vol : 5.96 L

Mash Water : 3.52 L
 Sparge Water : 6.39 L
 Boil Time : 90 min
 Total Water : 9.91 L



6 EBC

Brewhouse Efficiency: 71.8%

Mash Efficiency: 73.3%

Mash Profile

Double Decoction

56.3 °C - Strike Temp
 52 °C - 15 min - Protein Rest - Pull the first...
 64 °C - 30 min - Beta Rest - Add the first de...
 70 °C - 30 min - Alpha Rest - Add the second...
 75 °C - 10 min - Mash Out - Raise the tempera...

Fermentation Profile

Lager (Standard)

11 °C - 18 days - Primary
 15 °C - 3 days - Primary

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...
 Ca 7 Mg 2 Na 3 Cl 6 SO 7

SO/Cl ratio: 1.2

Mash pH: 5.39

Sparge pH: 6

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:

Recipe Notes

Double Decoction:

*Note: Pilsner Urquell uses a triple decoction method with an initial acid rest, but I use well enough modified malts and correct for pH already so the first of three decoctions is unnecessary. The

Pilsner Urquell Authentic (clone) -...

Recipe Notes

decoction measurements below are ones I developed for an electric system and err on the side of caution, so they are the lower amounts needed to potentially reach the next temperature step and direct heat can be applied to compensate.

- Perform a protein rest at 52C/125F for 15min, then pull off slightly less than 1/3 (1.16gal/4.4L) of the thickest mash and place it in a separate pot. Bring the pot slowly up to 70C/158F and hold for 15min, then slowly bring it up to a boil and proceed to boil for 10min. Stir often so the grains do not burn, but try to allow some 'browning' to help darken the colour and enhance the flavour/aroma profiles.

- Add the decoction back to the 52C/125F mash, little by little, aiming for a beta rest temperature of 64C/148F. Hold this temperature for 30min while adding back any leftover decoction (if any) as it cools.

- After this has finished, pull off roughly 1/6 (0.7gal/2.6L) of the thickest mash a second time and place it in the separate pot. Slowly bring the pot up to a boil and continue to boil for 10min. Add the second decoction back to the mash, little by little, aiming for an alpha rest temperature of 70C/158F. Hold this temperature for 30min while adding back any leftover decoction (if any) as it cools.

- Once this rest has finished, raise the temperature up to a mash out rest of 75C/167F and hold for 10min. After the decoctions and mash out are finished proceed to sparge/lauter as usual.

No Decoction:

Instead of the labour intensive double decoction mash schedule you could:

- Substitute some of the pilsner malt for vienna and/or munich to add colour and depth.
- Include some melanoidin malt for a slight decoction 'feel'.
- Add some carapils malt (or your preferred alternative) for improved head retention.
- After which, just carry out a temperature/infusion mash schedule based on your preferences.