

Keutebier - 4.9%

Altbier

Author: Dunc

Type: All Grain

IBU : 7 (Tinseth)
BU/GU : 0.15
Color : 7 EBC
Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.044
Original Gravity : 1.045
Final Gravity : 1.008

Fermentables (4.41 kg)

2.7 kg - Bohemian Pilsner 3.7 EBC (61.3%)
800 g - Gladfield Wheat Malt 4.2 EBC (18.2%)
400 g - Smoked Malt 3.9 EBC (9.1%)
237 g - Gladfield Sour Grapes Malt 6 EBC (5.4%)
170 g - Gladfield Big-O Malted Oats 4 EBC (3.9%)
100 g - Gladfield Gladiator Malt 8.2 EBC (2.3%)

Hops (54.7 g)

Mash - 50 g - Czech Saaz - 3% (5 IBU)
^ Check the alpha acid
45 min - 4.7 g - Czech Saaz - 3% (2 IBU)
^ Check the alpha acid

Hop Stand

20 min hopstand @ 80 °C

Miscellaneous

Mash - 2.5 g - Ascorbic Acid
Mash - 1.2 g - Baking Soda (NaHCO3)
Mash - 2.3 g - Calcium Chloride (CaCl2)
Mash - 1.2 g - Canning Salt (NaCl)
Mash - 1.5 g - Epsom Salt (MgSO4)
Mash - 4 ml - Glucanase
^ use 6ml per 25 litres
Mash - 1.6 g - Gypsum (CaSO4)
Mash - 0.11 g - Sodium Metabisulfite (Na2S2O5)
Sparge - 1 g - Ascorbic Acid
Sparge - 0.75 ml - Phosphoric Acid 50%
^ 50% concentration
15 min - Boil - 0.5 items - Whirlfloc
15 min - Boil - 2.5 g - Yeast nutrient
Primary - 2 ml - Clarity Ferm

Yeast

1 pkg - Wyeast Labs German Ale 1007

Starter

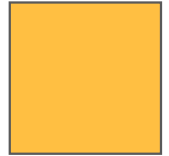
Step 1: 1.3 L (128 g DME / 156 g LME)
184 billion yeast cells
9 million cells / ml

Guten 70 for 21litre batch

Batch Size : 21 L
Boil Size : 23.45 L
Post-Boil Vol : 22.92 L

Mash Water : 16.51 L
Sparge Water : 8.87 L
Sparge Water Temp : 80 °C
Boil Time : 45 min
Total Water : 25.38 L

Brewhouse Efficiency: 75.6%
Mash Efficiency: 79.2%



7 EBC

Mash Profile

multi step mash keitsbier
35 °C - 5 min - Phytase
45 °C - 20 min - Glucanase
52 °C - 20 min - Protease
62 °C - 20 min - B-amylase
68 °C - 20 min - A-amylase 1
72 °C - 20 min - A-amylase 2
78 °C - 10 min - Mash out

Fermentation Profile

Ale
20 °C - 14 days - Primary

Water Profile

15 kahu water (Düsseldorf (Altbier))
Ca 56 Mg 8 Na 45 Cl 82 SO 65 HCO 68

SO/Cl ratio: 0.8

Mash pH: 5.32

Sparge pH: 5.2

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume: