

Pale Ale - 5.1%

American Pale Ale

Author: Admin Brewha

Type: All Grain

IBU : 36 (Tinseth)
 BU/GU : 0.73
 Color : 15 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.045 / 11.2 °P
 Original Gravity : 1.049 / 12.3 °P
 Final Gravity : 1.010 / 2.7 °P

Fermentables (57 lb 11.1 oz)

48 lb 9.8 oz - 2 Row Pale Malt 5.5 EBC (84.3%)
 3 lb - Crystal 60 2-Row 118 EBC (5.2%)
 2 lb 10.7 oz - Munich II 23 EBC (4.6%)
 2 lb 5 oz - Carapils 2.6 EBC (4%)
 1 lb 1.6 oz - Acidulated Malt 3.5 EBC (1.9%)

Hops (8.78 oz)

60 min - 2.22 oz - Mosaic Cryo - 23.3% (31 IBU)
 ^ Cryo

Hop Stand

20 min hopstand @ 170.6 °F
 20 min - 3.28 oz - Mosaic Cryo - 23.3% (5 IBU)
 ^ Cryo

Dry Hops

3 days - 3.28 oz - Citra Cryo - 21.9%
 ^ Cryo

Miscellaneous

Mash - 14.2 g - Calcium Chloride (CaCl2)
 Mash - 21 g - Epsom Salt (MgSO4)
 Mash - 42.68 g - Gypsum (CaSO4)
 Mash - 516.668 g - Rice Hulls
 Sparge - 2.3 g - Calcium Chloride (CaCl2)
 Sparge - 3.4 g - Epsom Salt (MgSO4)
 Sparge - 6.92 g - Gypsum (CaSO4)
 15 min - Boil - 2.756 items - Whirlfloc Tablets
 10 min - Boil - 13.141 g - Irish Moss
 Boil - 13.141 ml - Anti-foam Patco 376
 ^ Add to the wort after mash, before boil beg...
 Primary - 4.133 g - Brewers Clarex
 Secondary - 24.8 ml - Biofine Clear
 ^ Add to fermenter while gassing to distribut...

Yeast

1 pkg - Escarpment Yeast Labs English Ale II

BREWHA 1.5BBL BIAC

Batch Size : 32.76 gal
 Boil Size : 38.37 gal
 Post-Boil Vol : 34.67 gal

Mash Water : 36.09 gal
 Sparge Water : 6.28 gal
 Boil Time : 70 min
 Total Water : 42.37 gal



15 EBC

Brewhouse Efficiency: 77%
 Mash Efficiency: 78.2%

Mash Profile

Medium fermentability
 160.5 °F - Strike Temp
 152.6 °F - 45 min - Temperature

Fermentation Profile

Ale
 66.2 °F - 14 days - Primary
 39.2 °F -3 days - Cold Crash

Water Profile

Reverse Osmosis Water based on Victoria Treat...
 Ca 101 Mg 15 Na 0 Cl 51 SO 234 HCO 1

SO/Cl ratio: 4.6
 Mash pH: 5.25

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

Yeast should be propagated through single step to increase cell count. (See this link for details on how to do this: <https://brewhaequipment.com/search?q=propagate>)