

## Lager - 5.1%

### American Lager

Author: Admin Brewha

Type: All Grain

IBU : 9 (Tinseth)  
 BU/GU : 0.22  
 Color : 7 EBC  
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.030 / 7.6 °P  
 Original Gravity : 1.043 / 10.6 °P  
 Final Gravity : 1.004 / 1 °P

### Fermentables (45 lb 10.2 oz)

29 lb 1.6 oz - 2 Row Pale Malt 5.5 EBC (63.8%)  
 6 lb 9.8 oz - Corn Sugar (Dextrose) 0 EBC (14.5%)  
 6 lb 9.8 oz - Corn, Flaked 2.6 EBC (14.5%)  
 2 lb 3.3 oz - Acidulated Malt 3.5 EBC (4.8%)  
 1 lb 1.6 oz - Caramalt 36 EBC (2.4%)

### Hops (2.47 oz)

60 min - 2.47 oz - Cascade - 5.5% (9 IBU)

### Miscellaneous

Mash - 3.06 g - Calcium Chloride (CaCl2)  
 Mash - 7.07 g - Epsom Salt (MgSO4)  
 Mash - 3.06 g - Gypsum (CaSO4)  
 Mash - 468 g - Rice Hulls  
 Sparge - 0.48 g - Calcium Chloride (CaCl2)  
 Sparge - 1.12 g - Epsom Salt (MgSO4)  
 Sparge - 0.48 g - Gypsum (CaSO4)  
 10 min - Boil - 12.324 g - Irish Moss  
 Flameout - 12 g - Fermaid O  
 ^ From Scott Labs  
 Primary - 3.25 g - Brewers Clarex  
 Secondary - 23.4 ml - Biofine Clear  
 ^ Add to fermenter while gassing to distribut...

### Yeast

1 pkg - Escarpment Yeast Labs Isar Lager

### BREWHA 1.5BBL BIAC

Batch Size : 32.76 gal  
 Boil Size : 38.64 gal  
 Post-Boil Vol : 34.67 gal

Mash Water : 29.66 gal  
 Sparge Water : 11.17 gal  
 Boil Time : 75 min  
 Total Water : 40.83 gal



7 EBC

Brewhouse Efficiency: 77%

Mash Efficiency: 78.2%

### Mash Profile

High fermentability  
 152.8 °F - Strike Temp  
 147.2 °F - 80 min - Temperature

### Fermentation Profile

Ale  
 57.2 °F - 12 days - Primary  
 66.2 °F - 2 days - Primary  
 37.4 °F - 14 days - Cold Crash

### Water Profile

Reverse Osmosis Water based on Victoria Treat...  
 Ca 11 Mg 5 Na 0 Cl 11 SO 32 HCO 1

SO/Cl ratio: 2.9

Mash pH: 5.28

### Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume: