

Batch Number: 28 **Brewer(s):** TJ Lindsley **Date:** 1/23/2022

Beer Name/Style: Altbier **OG:**12.7 **IBU:** 33

Malts: Total LBs = **11.5 lbs**

German Pilsner - $114 / (.75 * 37) = 4.5$

Vienna - $114 / (.75 * 36) = 4.5$ (*Ordered the wrong amount - 1.6 lbs*)

Munich - $28.5 / (.75 * 36) = 1$

Carafa II - $8.55 / (.75 * 32) = .5$

Caramunich - $8.55 / (.75 * 34) = .5$ (*Changed to .25 lbs because of Vienna qty*)

Pale Chocolate - $11.4 / (.75 * 33) = .5$ (*Changed to .25 lbs because of Vienna qty*)

Hops: Total oz = 8 oz (**33**)

Tettnang (FWH) $1 * 4.1 * .23 * 75/5 = 14$

Saphir (FWH) $1 * 3 * .23 * 75/5 = 10$

Saphir (10 min) $1 * 3 * .08 * 75/5 = 4$

Tettnang (10 min) $1 * 4.1 * .08 * 75/5 = 5$

Tettnang (WP) 2 oz

Saphir (WP) 2 oz

Brewing:

Yeast Starter Start Time: 1/22/2022 4:00 PM

Yeast Starter End Time: 1/23/2022 4:00 PM

Water PH: 6.51

Strike Water Temp: 170 degrees

Mash Tun Temp: 152

Mash-In Start Time: 11:30

Amt. Strike Water Used: 3.75 gallons

Strike water ph: 8.8

Mash Temp: 152

First Runnings Gravity: 22.5

First Runnings ph: 5.52

Last Runnings Gravity: 3

Last Runnings ph: 5.72

Wort to Kettle Time: 12:40

Sparge Start Time: 12:45

Sparge Water Temp: 170

Lauter Out Temp: 135

Brew Kettle Temp: 212

Brew Kettle ph: 5.55

Heat on Kettle Time: 12:55

Brew Volume: 6.5 gallons

Kettle Gravity: 8.2 (Added $\frac{1}{3}$ lb of DME)

Kettle Boil Time: 1:20
Hop 1 Time: FWH
Hop 2 Time: 2:10
Hop 3 Time: N/A
Hop 4 Time: N/A
Whirlfloc Time: 2:10
Brew Kettle Volume: 5 gallons
Whirlpool Start: 2:21
Whirlpool Hops in Time: 2:21
Whirlpool Hops in Temp: 185
Whirlpool Finish: 2:30
Whirlpool Temp: 185
Knockout Start: 2:30

Cooling Water Temp: 65
Knockout End: 2:40
Actual OG: 12.7
Batch Efficiency: 87% (Messed up grist quantities and added DME to improve OG)
Batch ph: 5.38

Salts/Acids:

https://docs.google.com/spreadsheets/d/1_YGC3vEH7Im0YFNoDICH8J7FQyzgdigG/edit#gid=883869568

Cellar:

<https://docs.google.com/spreadsheets/d/1Whydfh8TQzAOfAA1yu6EoWzvlSPBNriZ4BgxINp6hsG/edit#gid=0>

Fermentation Vessel: 7 Gallon Grainfather
Fermentation Temp: 58
Yeast Type: Imperial Yeast G02 Kaiser
Yeast Source: Imperial Yeast
Date Capped: 1/23/2022
Date Diacetyl Rest: 1/27/2022
Diacetyl Rest Gravity: 5.3
Date Dry Hop: N/A
Dry Hop Addition: N/A
Diacetyl Rest Temp: 70
Date Crashed: 1/31/2022
Crash Temp: 38
FG: 2.9
Final ph: 4.6
ABV: 5.2

Date Transferred:

Tax Determined Amount: 0

Notes: Ordered the wrong amount of Vienna and had to make changes to the grain bill as well as add DME to correct for flavor and gravity.