

## xBmt-20200511 Low vs. High Trub in German Pils - 4.6%

German Pils 01 Brouwpunt 5L (60min) (rev 4) Author: Phil Rusher Batch Size : 5.6 L Boil Size : 7.76 L Post-Boil Vol : 5.96 L Type: All Grain IBU : 28 (Tinseth) Mash Water : 3.71 L BU/GU : 0.57 Sparge Water : 5.36 L 7 EBC Colour : 7 EBC Boil Time : 60 min Carbonation : 2.5 CO2-vol Total Water : 9.07 L Brewhouse Efficiency: 71.8% Pre-Boil Gravity : 1.038 : 1.049 Mash Efficiency: 73.3% Original Gravity : 1.014 Final Gravity Mash Profile

Fermentables (1.24 kg)

1.223 kg - Belgian Pilsner Malt (MFB) 3.3 EBC... 15 g - Swaen@Melany 52 EBC (1.2%)

Hops (23.6 g)

60 min - 3.5 g - Hallertau Magnum - 11% (19 IBU) 20 min - 4 g - Hallertauer Mittelfrueh - 3.7%... 10 min - 6.7 g - Hallertauer Mittelfrueh - 3.... 1 min - 9.4 g - Tettnang (Tettnang Tettnager)...

Miscellaneous

Mash - 1.22 g - Calcium Chloride (CaCl2) 33 %... ^ Lot # 115038

^ Brouwstore (NL) 055.035.0 Mash - 0.05 g - Canning Salt (NaCl)

^ Albert Heijn (NL)

Mash - 0.74 g - Epsom Salt (MgSO4)

^ Lot # /2119000091

^ Brouwstore (NL) 055.027.7 Mash - 1.13 g - Gypsum (CaSO4) ^ The Malt Miller (UK) CHE-03-004 Mash - 0.6 ml - Lactic Acid 80% 80%

^ Lot # 20200213

^ Brouwstore (NL) 003.002.3

Yeast

0.5 pkg - Imperial Yeast Harvest L17

Fermentation Profile

71.6 °C - Strike Temp

65.6 °C - 60 min - Mash In

Imported

19.4 °C - 10 days - Primary 18.3 °C - 10 days - Secondary 18.3 °C - 7 days - Conditioning

02 Light/Medium Body Profile (150F)

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl... Ca 50 Mg 10 Na 5 Cl 37 SO 105 HCO 17

SO/Cl ratio: 2.9

Mash pH: 5.38 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

Water Profile: Ca 50 | Mg 10 | Na 5 | SO4 105 | Cl 45 http://brulosophy.com/2020/05/11/kettle-trub-low-vs-high-in-a-german-pils-exbeeriment-results/