

xBmt-20200928 Bitter Hops: 30 vs. 60 Minutes in Pale Lager - 5.4

Festbier

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Type: All Grain

IBU : 19 (Tinseth)
BU/GU : 0.35
Colour : 8 EBC
Carbonation : 2.6 CO2-vol

Pre-Boil Gravity : 1.042
Original Gravity : 1.055
Final Gravity : 1.014

Fermentables (1.35 kg)

1.274 kg - BEST Pilsen Malt (BESTMALZ) 3.5 EB...
64 g - Carapils (Briess) 3 EBC (4.7%)
16 g - Swaen@Melany 52 EBC (1.2%)

Hops (10.9 g)

60 min - 10.9 g - Hallertauer Mittelfrueh (or...

Miscellaneous

Mash - 0.99 g - Baking Soda (NaHCO3)
^ Lot # 41190621/3
^ Brouwstore (NL) 003.106.2
Mash - 2.67 g - Calcium Chloride (CaCl2) 33 %...
^ Lot # 115038
^ Brouwstore (NL) 055.035.0
Mash - 0.99 g - Canning Salt (NaCl)
^ Albert Heijn (NL)
Mash - 1.21 g - Epsom Salt (MgSO4)
^ Lot # /2119000091
^ Brouwstore (NL) 055.027.7
Mash - 2.38 g - Gypsum (CaSO4)
^ The Malt Miller (UK) CHE-03-004
Mash - 0.8 ml - Lactic Acid 80% 80%
^ Lot # 20200213
^ Brouwstore (NL) 003.002.3

Yeast

0.5 pkg - Imperial Yeast Global L13

01 Brouwpunt 5L (60min) (rev 4)

Batch Size : 5.6 L
Boil Size : 7.76 L
Post-Boil Vol : 5.96 L

Mash Water : 4.06 L
Sparge Water : 5.12 L
Boil Time : 60 min
Total Water : 9.18 L



8 EBC

Brewhouse Efficiency: 71.8%
Mash Efficiency: 73.3%

Mash Profile

BIAB, Medium Body
72.9 °C - Strike Temp
66.7 °C - 60 min - Saccharification

Fermentation Profile

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

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...
Ca 100 Mg 15 Na 75 Cl 132 SO 200

SO/Cl ratio: 1.5
Mash pH: 5.39
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
<https://brulosophy.com/2020/09/28/bittering-hops-60-minute-vs-30-minute-kettle-addition-in-festbier-ex-beeriment-results/>