

Ich Weiss Es Nicht v2 - 5.1%

Weissbier 01 Brouwpunt 5L (90min) (rev 4) : 5.6 L Author: The Thirsty Otter Batch Size Boil Size : 8.66 L Post-Boil Vol : 5.96 L Type: All Grain IBU : 12 (Tinseth) Mash Water : 3 L : 0.27 BU/GU Sparge Water : 6.74 L 7 EBC : 7 EBC Colour Boil Time : 90 min Carbonation : 2.9 CO2-vol Total Water : 9.74 L Brewhouse Efficiency: 71.8% Pre-Boil Gravity : 1.028 : 1.041 Original Gravity Mash Efficiency: 73.3% Total Gravity : 1.044 Mash Profile Final Gravity : 1.005 07 Hefeweizen (60 min) Fermentables (1.04 kg) 48.3 °C - Strike Temp 700 g - Wheat Malt Light 4 EBC (67.3%) 45 °C - 10 min - Ferulic Acid Rest ^ The Malt Miller (UK) MAL-00-005 50 °C - 15 min - Protein Rest 300 g - Premiere Pilsner Malt 4 EBC (28.9%) 65 °C - 35 min - Saccharificattion ^ The Malt Miller (UK) MAL-00-033 40 g - Bottling - Sugar, Table (Sucrose) 2 EB... Fermentation Profile 01 Ale + DR + Conditioning Hops (26.8 g) 19 °C - 10 days - Primary 10 min - 6.8 g - Hallertauer Mittelfrueh (T90... 23 °C - 4 days - Diacetyl rest ^ The Malt Miller (UK) HOP-06-008 19 °C - 45 days - Conditioning Water Profile Hop Stand 20 min hopstand @ 80 °C NL Spa Reine Flat Mineral Water (www.ah.nl) (... Ca 17 Mg 4 Na 33 Cl 50 SO 25 HCO 40 20 min - 20 g - Hallertauer Mittelfrueh (T90)... ^ The Malt Miller (UK) HOP-06-008 SO/Cl ratio: 0.5 Miscellaneous Mash pH: 5.38 Mash - 3 l - NL Spa Reine Flat Mineral Water Sparge pH: 6 ^ AH (NL) Mash - 0.32 g - Baking Soda (NaHCO3) Measurements ^ Lot # 41190621/3 ^ Brouwstore (NL) 003.106.2 Mash pH: Mash - 0.55 g - Calcium Chloride (CaCl2) 33 %... ^ Lot # 115038 Boil Volume: ^ Brouwstore (NL) 055.035.0 Mash - 0.53 g - Canning Salt (NaCl) Pre-Boil Gravity: ^ Albert Heijn (NL) Mash - 0.21 g - Epsom Salt (MgSO4) Post-Boil Kettle Volume: ^ Lot # /2119000091 ^ Brouwstore (NL) 055.027.7 Original Gravity: Mash - 0.22 g - Gypsum (CaSO4) ^ The Malt Miller (UK) CHE-03-004 Fermenter Top-Up: Mash - 1.7 ml - Lactic Acid 80% 80% ^ Lot # 20200213 Fermenter Volume: ^ Brouwstore (NL) 003.002.3 Mash - 2 items - pH paper strips 5.2 - 6.8 Final Gravity: ^ Lot # 20200422/1 ^ Brouwstore (NL) 013.075.7 Bottling Volume: Sparge - 6.74 l - NL Spa Reine Flat Mineral W... ^ AH (NL) 10 min - Boil - 0.05 g - Lallemand Servomyces

Yeast

0.5 pkg - Fermentis Safbrew Wheat WB-06

10 min - Boil - 1 items - Wort Chiller

Bottling - 15 items - 33 cl Steinie bottle (s...

^ Lot # 154001112904ABV ^ Brouwstore (NL) 050.620.4

^ Brouwstore (NL) 057.020.20

^ Brouwstore (NL) 017.500.0

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Recipe Notes

Maltase converts maltose into glucose. It is therefore an important enzyme for the yeast. But it is also present in malt. But since its temperature optimum is between $95^{\circ}F$ ($35^{\circ}C$) and $104^{\circ}F$ ($40^{\circ}C$) [Narziss, 2005] and it is being deactivated above $115^{\circ}F$ ($45^{\circ}C$), this enzyme does not play any significant role in most mashing schedules since higher temperature rests are necessary to genate glucose for this enzyme.

It is however used in a mashing schedule developed by Markus Hermann from the Weihenstephan brewing school in Germany. This mash converts half the mash to get a large amount of glucose. After that conversion is complete, it is mixed with the remaining mash to achieve a rest temperature of 95°F (35°F) where the maltase converts the now existing maltose to glucose. After that the whole mash is again run through a regular mashing schedule to convert the remaining starch to maltose and dextrins. The result is a wort with a very high glucose content (about 40% of the fermentable sugars). Yeast fermenting such a wort will generate more esters, a property that can be used to produce German wheat beers with a high ester content.