

**xBmt-20201029 FWH vs. Standard Hop - European Lager - 4.6%****International Pale Lager**

Author: Mike Olivier

Type: All Grain

IBU : 27 (Tinseth)  
 BU/GU : 0.61  
 Colour : 7 EBC  
 Carbonation : 2.5 CO2-vol

Pre-Boil Gravity : 1.033  
 Original Gravity : 1.045  
 Final Gravity : 1.010

**Fermentables (1.13 kg)**

975 g - Pilsner (2 Row) Ger 3.9 EBC (86.1%)  
 94 g - Barley, Flaked (Briess) 3.3 EBC (8.3%)  
 63 g - Carapils (Briess) 3 EBC (5.6%)

**Hops (10 g)**

First Wort 75 - 10 g - Northern Brewer - 4.6%...

**Miscellaneous**

Mash - 0.33 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 0.13 g - Calcium Chloride (CaCl2) 33 %...  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.13 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 0.17 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 0.17 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 1.2 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

**Yeast**

9.5 ml - White Labs German Lager WLP830

**01 Brouwpunt 5L (75min) (rev 4)**

Batch Size : 5.6 L  
 Boil Size : 8.21 L  
 Post-Boil Vol : 5.96 L

Mash Water : 3.4 L  
 Sparge Water : 6.02 L  
 Boil Time : 75 min  
 Total Water : 9.42 L

**7 EBC**

Brewhouse Efficiency: 71.8%

Mash Efficiency: 73.3%

**Mash Profile**

01 Light Body Profile (148F)  
 70.4 °C - Strike Temp  
 64.4 °C - 75 min - Mash In

**Fermentation Profile**

Imported  
 19.4 °C - 4 days - Primary  
 19.4 °C - 10 days - Secondary  
 18.3 °C - 30 days - Conditioning

**Water Profile**

02 NL Spa Reine Flat Mineral Water ([www.ah.nl](http://www.ah.nl))...  
 Ca 11 Mg 4 Na 18 Cl 16 SO 21

SO/Cl ratio: 1.3  
 Mash pH: 5.4  
 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**

<https://brulosophy.com/2020/10/29/first-wort-hop-vs-75-minute-kettle-addition-the-bru-club-xbmt-series/>