

## The Hop Chronicles | Amarillo LUPOMAX (2020) Pale Ale - 5.4%

### American Pale Ale

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Type: All Grain

IBU : 43 (Tinseth)  
 BU/GU : 0.83  
 Colour : 11 EBC  
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.040  
 Original Gravity : 1.052  
 Final Gravity : 1.011

### Fermentables (1.35 kg)

1.122 kg - Lamonta: Pale American Barley Malt...  
 224 g - Vanora: Vienna-style Barley Malt 13.8...

### Hops (38.2 g)

60 min - 0.5 g - Amarillo LUPOMAX - 14% (3 IBU)  
 30 min - 3.2 g - Amarillo LUPOMAX - 14% (17 IBU)  
 15 min - 4.3 g - Amarillo LUPOMAX - 14% (14 IBU)  
 2 min - 15.1 g - Amarillo LUPOMAX - 14% (9 IBU)

### Dry Hops

4 days - 15.1 g - Amarillo LUPOMAX - 14%

### Miscellaneous

Mash - 0.11 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 1.7 g - Calcium Chloride (CaCl2) 33 % 33%  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.09 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 2.45 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 0.2 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

### Yeast

0.3 pkg - Imperial Yeast Flagship A07

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

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

Mash Water : 4.04 L  
 Sparge Water : 5.13 L  
 Boil Time : 60 min  
 Total Water : 9.17 L



11 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

03 - High/Moderate Fermentability  
 72.9 °C - Strike Temp  
 66.7 °C - 60 min - Temperature

### Fermentation Profile

Ale  
 18.9 °C - 9 days - Primary

### Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
 Ca 89 Mg 2 Na 10 Cl 50 SO 153

SO/Cl ratio: 3.1

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 92 | Mg 1 | Na 10 | SO4 153 | Cl 50