

## Winchester Pale Ale - 5.1%

### American Pale Ale

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Type: All Grain

IBU : 29 (Tinseth)  
BU/GU : 0.61  
Colour : 6 EBC  
Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.036  
Original Gravity : 1.047  
Final Gravity : 1.008

### Fermentables (1.15 kg)

1.153 kg - Extra Pale Maris Otter 3.1 EBC (100%)  
^ The Malt Miller (UK) MAL-00-040

### Hops (58.6 g)

60 min - 5.2 g - Cascade (T90) - 7.5% (20 IBU)  
^ Brouwmaatje (NL) BM-BL.053.148.3/100

### Hop Stand

20 min hopstand @ 80 °C  
20 min - 19 g - Cascade (T90) - 7.5% (9 IBU)  
^ Brouwmaatje (NL) BM-BL.053.148.3/100

### Dry Hops

5 days - 34.4 g - Mosaic - 11.6%  
^ Hopeye (GB) HP-50G-HOPS-MOSIAC (50 grams)

### Miscellaneous

Mash - 0.26 g - Baking Soda (NaHCO3)  
^ Lot # 41190621/3  
^ Brouwstore (NL) 003.106.2  
Mash - 1.92 g - Calcium Chloride (CaCl2) 33 %...  
^ Lot # 115038  
^ Brouwstore (NL) 055.035.0  
Mash - 0.25 g - Canning Salt (NaCl)  
^ Albert Heijn (NL)  
Mash - 0.55 g - Epsom Salt (MgSO4)  
^ Lot # /2119000091  
^ Brouwstore (NL) 055.027.7  
Mash - 2.05 g - Gypsum (CaSO4)  
^ The Malt Miller (UK) CHE-03-004  
Mash - 0.4 ml - Lactic Acid 80% 80%  
^ Lot # 20200213  
^ Brouwstore (NL) 003.002.3

### Yeast

0.3 pkg - Lallemend (LalBrew) Verdant IPA

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

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

Mash Water : 3.46 L  
Sparge Water : 5.53 L  
Boil Time : 60 min  
Total Water : 8.99 L



6 EBC

Brewhouse Efficiency: 71.8%  
Mash Efficiency: 73.3%

### Mash Profile

01 One Step Mash (60 min)  
71 °C - Strike Temp  
65 °C - 60 min - Temperature

### Fermentation Profile

01 Ale + DR + Conditioning  
18 °C - 10 days - Primary  
21 °C - 4 days - Diacetyl rest  
18 °C - 14 days - Carbonation  
18 °C - 28 days - Conditioning

### Water Profile

02 NL Spa Reine Flat Mineral Water ([www.ah.nl](http://www.ah.nl)...  
Ca 84 Mg 8 Na 22 Cl 67 SO 155 HCO 38

SO/Cl ratio: 2.3  
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: