

## Crisp Witty - 5.4%

### Witbier

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Type: All Grain

IBU : 11 (Tinseth)  
 BU/GU : 0.22  
 Colour : 7 EBC  
 Carbonation : 2.6 CO2-vol

Pre-Boil Gravity : 1.037  
 Original Gravity : 1.048  
 Total Gravity : 1.051  
 Final Gravity : 1.010

### Fermentables (1.26 kg)

702 g - Premium Pilsner Malt 4 EBC (55.7%)  
 ^ The Malt Miller (UK) MAL-00-033  
 351 g - Pale Wheat Malt 3 EBC (27.8%)  
 ^ The Malt Miller (UK) MAL-00-047  
 70 g - Flaked Torrefied Oats 5 EBC (5.6%)  
 70 g - Oat Husks 2 EBC (5.6%)  
 ^ The Malt Miller (UK) MAL-03-003  
 34 g - Flaked Oats Including Husk 2 EBC (2.7%)  
 ^ The Malt Miller (UK) MAL-03-007  
 34 g - Munich Malt I 15 EBC (2.7%)  
 ^ The Malt Miller (UK) MAL-00-017  
 35 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
 ^ Albert Heijn (NL)

### Hops (6.4 g)

First Wort 60 - 3 g - Saaz - 4.4% (7 IBU)  
 ^ The Malt Miller (UK) HOP-06-000  
 15 min - 3.4 g - Saaz - 4.4% (4 IBU)  
 ^ The Malt Miller (UK) HOP-06-000

### Miscellaneous

Mash - 0.29 g - Baking Soda (NaHCO3)  
 ^ Lot # 41190621/3  
 ^ Brouwstore (NL) 003.106.2  
 Mash - 0.5 g - Calcium Chloride (CaCl2) 33 % 33%  
 ^ Lot # 115038  
 ^ Brouwstore (NL) 055.035.0  
 Mash - 0.5 g - Canning Salt (NaCl)  
 ^ Albert Heijn (NL)  
 Mash - 0.2 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 0.2 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 1.8 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3  
 5 min - Boil - 1.12 g - Chamomile flower  
 5 min - Boil - 2.52 g - Coriander Seed  
 ^ The malt Miller (UK)  
 5 min - Boil - 1.12 g - Ginger Root  
 5 min - Boil - 2.52 g - Orange Peel, Bitter  
 ^ Brouwpunt (NL)

### Yeast

0.3 pkg - White Labs Belgian Wit Ale WLP400

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

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

Mash Water : 3.57 L  
 Sparge Water : 5.45 L  
 Boil Time : 60 min  
 Total Water : 9.02 L



7 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

01 One Step Mash (60 min)  
 72.1 °C - Strike Temp  
 66 °C - 60 min - Temperature

### Fermentation Profile

01 Ale + DR + Conditioning  
 17 °C - 10 days - Primary  
 22 °C - 4 days - Diacetyl rest  
 17 °C - 14 days - Carbonation  
 17 °C - 28 days - Conditioning

### Water Profile

02 NL Spa Reine Flat Mineral Water ([www.ah.nl](http://www.ah.nl)...  
 Ca 17 Mg 4 Na 34 Cl 50 SO 25

SO/Cl ratio: 0.5

Mash pH: 5.3

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:

# Crisp Witty

## Recipe Notes

Target: ABV = 5.0 %, IBU = 9.2, OG = 1.048, FG = 1.010.

We aimed for a softer water profile, with a chloride to sulphate ratio of around 1.5:1 (sulphate to chloride = 0.66).

We achieve this by using primarily table salt and calcium chloride (with a smidge of calcium sulphate) in the mash with the mash adjusted to 5.3 pH using lactic acid.

We carbon filter our liquor and hold it at 85C overnight to flash off any chlorine.

A Belgian Wit should have a smooth and creamy mouthfeel (aided by the wheat) but a dry finish.