

Brewdog - #310 Clockwork Tangerine (clone) v2 - 6.4%

American IPA

Author: Brynne Tobbe

Type: All Grain

IBU : 21 (Tinseth)
 Colour : 15 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.044
 Original Gravity : 1.060
 Final Gravity : 1.011

Fermentables (1.52 kg)

1.3 kg - Pale Ale 6.9 EBC (85.5%)
 130 g - Caramalt 15L 34.5 EBC (8.6%)
 60 g - Flaked Rice 1 EBC (4%)
 30 g - Caramel / Crystal 10L 19.7 EBC (2%)

Hops (55.3 g)

70 min - 1.4 g - Mandarina Bavaria - 8.5% (6...
 70 min - 0.5 g - Citra - 11% (3 IBU)
 10 min - 1.4 g - Cascade - 7% (2 IBU)
 10 min - 1.4 g - Nugget - 13% (4 IBU)
 ^ Brouwland (BE) 053.291.1
 10 min - 0.6 g - Citra - 11% (1 IBU)
 10 min - 0.6 g - Mandarina Bavaria - 8.5% (1...

Hop Stand

10 min hopstand @ 80 °C
 10 min - 5 g - Mandarina Bavaria - 8.5% (2 IBU)
 10 min - 2.2 g - Nelson Sauvin - 12.5% (1 IBU)
 10 min - 1.4 g - Citra - 11% (1 IBU)
 10 min - 1.1 g - Amarillo - 8.6% (0 IBU)
 10 min - 0.8 g - Nugget - 13% (0 IBU)

Dry Hops

7 days - 11.2 g - Mandarina Bavaria - 8.5%
 7 days - 8.4 g - Cascade - 7%
 7 days - 7 g - Citra - 11%
 7 days - 7 g - Nelson Sauvin - 12.5%
 7 days - 5.3 g - Nugget - 13%

Miscellaneous

Mash - 0.58 g - Epsom Salt (MgSO4)
 ^ Lot # /2119000091
 ^ Brouwstore (NL) 055.027.7
 Mash - 1.3 ml - Lactic Acid 80% 88%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 3 items - pH paper strips 5.2 - 6.8
 ^ Lot # 20200422/1
 ^ Brouwstore (NL) 013.075.7
 60 min - Boil - 0.15 g - Lipohop K
 ^ The Malt Miller (UK) CH-03-013
 10 min - Boil - 1 g - Irish Moss
 ^ Brouwstore (NL) 125.249.1
 10 min - Boil - 0.06 g - Lallemand Servomyces
 ^ Lot # 154001112904ABV
 ^ Brouwstore (NL) 050.620.4
 10 min - Boil - 1 items - Wort Chiller
 ^ Brouwstore (NL) 057.020.20
 Bottling - 15 items - Steinie bottle 33 cl (s...
 ^ Brouwstore (NL) 017.500.0

01 Brouwpunt 5L (70min) (rev 4)

Batch Size : 5.6 L
 Boil Size : 8.06 L
 Post-Boil Vol : 5.96 L

Mash Water : 4.38 L
 Sparge Water : 5.2 L
 Boil Time : 70 min
 Total Water : 9.58 L

Brewhouse Efficiency: 71.8%
 Mash Efficiency: 73.3%

Mash Profile

Mash Steps
 72.1 °C - Strike Temp
 66 °C - 45 min - Temperature

Fermentation Profile

Ale
 20 °C - 14 days - Primary

Water Profile

NL Hoofddorp Rein Tap Water (2020-Q1 WQR) (St...
 Ca 41 Mg 15 Na 67 Cl 71 SO 68

SO/Cl ratio: 1
 Mash pH: 5.41

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity:

Fermenter Top-Up:

Fermenter Volume:

Final Gravity:

Bottling Volume:



15 EBC

Brewdog - #310 Clockwork Tangerine...

Recipe Notes

Target: ABV = 7.0 %, IBU = 55

Malt is ordered with standard crush @ The Malt Miller (<https://www.themaltmiller.co.uk/>).