

## Holgate Brewhouse - X-Wing XPA (clone) - 5.6%

### American Pale Ale

Author: Pig Den Brewing

Type: All Grain

IBU : 30 (Tinseth)  
 BU/GU : 0.57  
 Colour : 10 EBC  
 Carbonation : 2.3 CO2-vol

Pre-Boil Gravity : 1.041  
 Original Gravity : 1.053  
 Final Gravity : 1.010

### Fermentables (1.33 kg)

1.329 kg - Ale Malt 6 EBC (100%)

### Hops (39.3 g)

15 min - 4.2 g - Azacca - 15% (17 IBU)

### Hop Stand

30 min hopstand @ 75 °C  
 30 min 75 °C - 4.8 g - Citra - 12% (3 IBU)  
 30 min 75 °C - 4.8 g - El Dorado - 15% (4 IBU)  
 30 min 75 °C - 4.8 g - Mosaic (HBC 369) - 12....  
 15 min 75 °C - 4.8 g - Azacca - 15% (3 IBU)

### Dry Hops

4 days - 5.3 g - Citra - 12%  
 4 days - 5.3 g - El Dorado - 15%  
 4 days - 5.3 g - Mosaic (HBC 369) - 12.25%

### Miscellaneous

Mash - 0.46 g - Epsom Salt (MgSO4)  
 ^ Lot # /2119000091  
 ^ Brouwstore (NL) 055.027.7  
 Mash - 2.36 g - Gypsum (CaSO4)  
 ^ The Malt Miller (UK) CHE-03-004  
 Mash - 0.8 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3  
 Sparge - 0.94 ml - Lactic Acid 80% 80%  
 ^ Lot # 20200213  
 ^ Brouwstore (NL) 003.002.3

### Yeast

0.3 pkg - Fermentis Safale American US-05

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

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

Mash Water : 3.99 L  
 Sparge Water : 5.17 L  
 Boil Time : 60 min  
 Total Water : 9.16 L



10 EBC

Brewhouse Efficiency: 71.8%  
 Mash Efficiency: 73.3%

### Mash Profile

Single Infusion, Medium Body, No Mash Out  
 71 °C - Strike Temp  
 65 °C - 60 min - Mash In

### Fermentation Profile

Ale  
 20 °C - 14 days - Primary

### Water Profile

NL Hoofddorp Rein Tap Water (2020-Q3 WQR) (St...  
 Ca 100 Mg 15 Na 68 Cl 92 SO 212

SO/Cl ratio: 2.3  
 Mash pH: 5.41  
 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: