

## #38 Black IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **79**
- SRM **39.9**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **27.1 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.2 liter(s)**
- Total mash volume **29.8 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **23.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **10 min** at **72C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

### Fermentables

| Type  | Name                            | Amount          | Yield  | EBC  |
|-------|---------------------------------|-----------------|--------|------|
| Grain | Briess - Pilsen Malt            | 5.07 kg (76.5%) | 80.5 % | 2    |
| Grain | Caramel/Crystal Malt - 20L      | 0.28 kg (4.2%)  | 75 %   | 39   |
| Grain | Wheat, Flaked                   | 0.65 kg (9.8%)  | 60 %   | 4    |
| Grain | Weyermann - Dehusked Carafo III | 0.63 kg (9.5%)  | 25 %   | 1400 |

### Hops

| Use for   | Name   | Amount | Time     | Alpha acid |
|-----------|--------|--------|----------|------------|
| Boil      | Mosaic | 66 g   | 60 min   | 12.3 %     |
| Whirlpool | Mosaic | 160 g  | 1 min    | 12.3 %     |
| Dry Hop   | Mosaic | 200 g  | 2 day(s) | 12.3 %     |

### Yeasts

| Name                          | Type | Form  | Amount | Laboratory  |
|-------------------------------|------|-------|--------|-------------|
| Wyeast - 1272 American Ale II | Ale  | Slant | 200 ml | Wyeast Labs |