

Black IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **33**
- SRM **31.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **0 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|------|
| Grain | Pale Ale | 3 kg (48.4%) | 80 % | 5 |
| Grain | Pilzneński | 1.5 kg (24.2%) | 81 % | 4 |
| Grain | Thomas Fawcett - Crystal | 0.7 kg (11.3%) | 70 % | 160 |
| Grain | Carafa II | 0.5 kg (8.1%) | 70 % | 1000 |
| Grain | Biscuit Malt | 0.25 kg (4%) | 79 % | 45 |
| Sugar | Cukier | 0.25 kg (4%) | 100 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil | Centennial | 20 g | 50 min | 10.5 % |
| Boil | Cascade | 20 g | 30 min | 6 % |
| Boil | Willamette | 20 g | 15 min | 5 % |
| Dry Hop | Centennial | 30 g | 2 day(s) | 10.5 % |
| Dry Hop | Cascade | 30 g | 2 day(s) | 6 % |
| Dry Hop | Willamette | 30 g | 2 day(s) | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------|-----|-----|--------|-----|
| us-05 | Ale | Dry | 12.5 g | --- |
|-------|-----|-----|--------|-----|