

Black IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **77**
- SRM **32.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 5 kg (68.5%) | 80 % | 4 |
| Grain | Oats, Flaked | 1.2 kg (16.4%) | 80 % | 2 |
| Grain | Weyermann - Dehusked Carafa II | 0.6 kg (8.2%) | 30 % | 1100 |
| Grain | Pszeniczny | 0.5 kg (6.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------|--------|----------|------------|
| Boil | Marynka | 70 g | 60 min | 9.1 % |
| Boil | Sabro | 25 g | 0 min | 15 % |
| Whirlpool | Sabro | 50 g | 20 min | 15 % |
| Dry Hop | HBC 472 | 25 g | 3 day(s) | 9.5 % |
| Dry Hop | Idaho Gem | 50 g | 3 day(s) | 13.7 % |
| Dry Hop | Sabro | 50 g | 3 day(s) | 15 % |
| Dry Hop | BRU-1 | 25 g | 3 day(s) | 15.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 23 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-------------------|--------|---------|--------|
| Water Agent | CaCl ₂ | 7 g | Mash | 60 min |
| Water Agent | Lactic Acid | 7 g | Mash | 60 min |
| Fining | Whirlfloc-T | 2.5 g | Boil | 10 min |