

Black IPA #23

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **76**
- SRM **38.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **7 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.1 liter(s)**
- Total mash volume **28.2 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **69 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **10 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **30.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Płatki żytnie | 0.5 kg (7.1%) | 70 % | 3 |
| Grain | Pszeniczny | 0.6 kg (8.5%) | 85 % | 4 |
| Grain | Jęczmień palony | 0.15 kg (2.1%) | 55 % | 985 |
| Grain | Weyermann - Chocolate Wheat | 0.3 kg (4.3%) | 74 % | 900 |
| Grain | Fawcett - Pale Chocolate | 0.5 kg (7.1%) | 71 % | 1100 |
| Grain | Strzegom Pale Ale | 5 kg (70.9%) | 79 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Magnum | 30 g | 60 min | 13.5 % |
| Boil | Cascade | 30 g | 30 min | 7.1 % |
| Boil | Citra | 30 g | 30 min | 14.2 % |
| Whirlpool | Citra | 30 g | 0 min | 14.2 % |
| Whirlpool | Mosaic | 30 g | 0 min | 11.7 % |
| Dry Hop | Citra | 40 g | 4 day(s) | 14.2 % |
| Dry Hop | Mosaic | 20 g | 4 day(s) | 11.7 % |

| | | | | |
|---------|---------|------|----------|-------|
| Dry Hop | Cascade | 20 g | 4 day(s) | 7.1 % |
|---------|---------|------|----------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 11 g | Danstar |