

## 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    |