

## Black IPA #23

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- 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 %
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### Yeasts

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