

## Black IPA#3

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- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **69**
- SRM **25.6**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **29.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **76C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **29.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzński lager Malteurop	6.5 kg (86.7%)	80 %	4
Grain	Słód Carahell (R)	0.3 kg (4%)	75 %	25
Grain	Płatki owsiane	0.2 kg (2.7%)	85 %	3
Adjunct	jeczmiem palony, carafa na zimno	0.5 kg (6.7%)	1 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	12.8 %
Boil	Citra	15 g	20 min	13.3 %
Boil	Mosaic	15 g	20 min	12.4 %
Boil	Cascade	15 g	20 min	6.9 %
Boil	Mosaic	15 g	7 min	12.4 %
Boil	Citra	15 g	7 min	13.3 %
Boil	Cascade	15 g	7 min	6.9 %
Boil	Citra	20 g	1 min	13.3 %
Boil	Cascade	20 g	1 min	6.9 %
Boil	Mosaic	20 g	1 min	12.4 %

Dry Hop	Mosaic, Cascade, Citra	90 g	4 day(s)	12.4 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
sds	Ale	Slant	300 ml	---

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	1 g	Boil	10 min