

## Black IPA v3

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **83**
- SRM **33.2**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **30.2 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (66.2%)	80 %	4
Grain	Oats, Flaked	1.2 kg (15.9%)	80 %	2
Grain	Weyermann - Dehusked Carafa II	0.6 kg (7.9%)	30 %	1100
Grain	Castlemalting - Cara Clair	0.5 kg (6.6%)	78 %	4
Grain	Abbey Castle	0.25 kg (3.3%)	80 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	60 g	60 min	11.5 %
Boil	Książęcy	20 g	20 min	7 %
Whirlpool	Książęcy	60 g	20 min	7 %
Dry Hop	Exp 2/20	200 g	3 day(s)	11.5 %
Dry Hop	Chinook	50 g	3 day(s)	13 %
Dry Hop	Książęcy	100 g	3 day(s)	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Wyeast - 1272 American Ale II	Ale	Liquid	1500 ml	Wyeast Labs
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCl2	7 g	Mash	60 min
Water Agent	Lactic Acid	7 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min