

## Black IPA v4

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **46**
- SRM **36.8**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **73.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.7 kg (45.3%)	80 %	4
Grain	Viking Pale Ale malt	1 kg (26.7%)	80 %	5
Grain	Pszeniczny	0.5 kg (13.3%)	85 %	4
Grain	Carahell	0.25 kg (6.7%)	77 %	26
Grain	Simpsons - Black Malt	0.3 kg (8%)	1 %	1430

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	12 %
Boil	Citra	10 g	15 min	12 %
Boil	Cascade	10 g	15 min	6 %
Aroma (end of boil)	Citra	10 g	0 min	12 %
Aroma (end of boil)	Cascade	10 g	0 min	6 %
Dry Hop	Cascade	30 g	5 day(s)	6 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Chinook	20 g	5 day(s)	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	---

### Extras

Type	Name	Amount	Use for	Time
Other	Witamina C	2 g	Bottling	---
Water Agent	Gips piwowarski	2 g	Mash	60 min