

## Black IPA v3

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- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **45**
- SRM **32.7**
- 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 **80 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.7 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 **73.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.7 kg (73%)	80 %	4
Grain	Pszeniczny	0.5 kg (13.5%)	85 %	4
Grain	Carahell	0.25 kg (6.8%)	77 %	26
Grain	Simpsons - Black Malt	0.25 kg (6.8%)	70 %	1430

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	12 %
Boil	Simcoe	10 g	15 min	13.2 %
Boil	Columbus/Tomahawk/Zeus	12 g	15 min	15.5 %
Aroma (end of boil)	Simcoe	10 g	0 min	13.2 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	10 g	0 min	15.5 %
Dry Hop	Simcoe	80 g	5 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP066 London fog	Ale	Slant	100 ml	---

## Extras

Type	Name	Amount	Use for	Time
Other	Witamina C	2 g	Bottling	---