

## Black IPA v3

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **81**
- SRM **32.1**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- 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 **12.7 liter(s)** of **76C** water or to achieve **27.7 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	Columbus/Tomahawk/Zeus	30 g	60 min	15.4 %
Boil	Columbus/Tomahawk/Zeus	5 g	45 min	15.5 %
Boil	Sabro	15 g	45 min	13.8 %
Boil	Sabro	25 g	20 min	13.8 %
Boil	Sabro	60 g	0 min	13.8 %
Dry Hop	Sabro	100 g	3 day(s)	13.8 %
Dry Hop	Chinook	50 g	3 day(s)	13 %
Dry Hop	HBC 472	50 g	3 day(s)	9.5 %

### Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Danstar - Nottingham	Ale	Slant	200 ml	Danstar

### **Extras**

<b>Type</b>	<b>Name</b>	<b>Amount</b>	<b>Use for</b>	<b>Time</b>
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