

## Black IPA v2

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- Gravity **16.8 BLG**
- ABV ---
- IBU **83**
- SRM **22.2**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **16.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **15.6 liter(s)**

### Steps

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

### Mash step by step

- Heat up **12.1 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.2 kg (86.7%)	80 %	4
Grain	Carafa III special	0.15 kg (4.1%)	70 %	1300
Grain	Biscuit Malt	0.15 kg (4.1%)	79 %	45
Grain	Caraamber	0.05 kg (1.4%)	70 %	60
Sugar	Cukier	0.14 kg (3.8%)	100 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	20 g	60 min	17 %
Boil	Palisade	20 g	30 min	7.5 %
Boil	Palisade	20 g	15 min	7.5 %
Aroma (end of boil)	Citra	20 g	0 min	13.5 %
Dry Hop	Citra	20 g	7 day(s)	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	60 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	60 min