

## r black ipa

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **53**
- SRM **30.6**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **16.6 liter(s)**

### Steps

- Temp **61 C**, Time **60 min**
- Temp **70 C**, Time **20 min**

### Mash step by step

- Heat up **12.5 liter(s)** of strike water to **67.8C**
- Add grains
- Keep mash **60 min** at **61C**
- Keep mash **20 min** at **70C**
- 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	Viking Pilsner malt r	3.1 kg (73.5%)	83 %	4
Grain	Weyermann - Carapils	0.35 kg (8.3%)	78 %	4
Grain	Carafa III	0.35 kg (8.3%)	72 %	1034
Grain	Viking Wheat Malt	0.15 kg (3.6%)	83 %	5
Grain	płatki jęczmienne	0.2 kg (4.7%)	65 %	4
Sugar	Brown Sugar, Dark	0.065 kg (1.5%)	100 %	99

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	10 g	60 min	12 %
Boil	Strata r	8 g	22 min	13.3 %
Boil	Amarillo r	8 g	22 min	9.9 %
Boil	Strata r	9 g	12 min	13.3 %
Boil	Amarillo r	9 g	12 min	9.9 %
Boil	Cascade	10 g	12 min	6 %
Boil	Strata r	9 g	1 min	13.3 %
Boil	Amarillo r	9 g	1 min	9.9 %

Boil	Cascade	10 g	1 min	6 %
Dry Hop	Strata r	22 g	5 day(s)	13.3 %
Dry Hop	Amarillo r	22 g	5 day(s)	9.9 %
Dry Hop	Cascade	15 g	5 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
gęstwa us-05 po sosnapa 2023	Ale	Slant	175 ml	Fermentis