

## 6# black IPA 18blg

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- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **90**
- SRM **31.8**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **23.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

### Steps

- Temp **66 C**, Time **80 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **22.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **80 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.4 kg (73%)	80 %	5
Grain	Monachijski Ciemny Steinbach	0.5 kg (6.8%)	100 %	30
Grain	Monachijski Ciemny Steinbach	0.2 kg (2.7%)	100 %	100
Grain	Weyermann - Carafa II	0.3 kg (4.1%)	70 %	1100
Grain	Strzegom pszenica prażona	0.2 kg (2.7%)	70 %	1000
Grain	Płatki pszeniczne	0.4 kg (5.4%)	85 %	3
Grain	Płatki owsiane	0.4 kg (5.4%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	90 min	16.8 %
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.1 %
Aroma (end of boil)	Cascade	20 g	5 min	9 %
Aroma (end of boil)	Centennial	20 g	1 min	8.3 %
Dry Hop	Ahtanum	25 g	7 day(s)	3.6 %
Dry Hop	Cascade	20 g	5 day(s)	9 %

Dry Hop	Centennial	10 g	4 day(s)	8.3 %
Dry Hop	Simcoe	20 g	3 day(s)	11.5 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Danstar - Nottingham	Ale	Slant	500 ml	Danstar