

Black IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **43**
- SRM **32.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	1.5 kg (39.4%)	82 %	4
Grain	Viking Pale Ale malt	1 kg (26.2%)	80 %	5
Grain	Oats, Malted	0.4 kg (10.5%)	80 %	5
Grain	Strzegom Pszeniczny	0.4 kg (10.5%)	81 %	6
Grain	Viking Czekoladowy ciemny	0.25 kg (6.6%)	67 %	900
Grain	Karmelowy Jasny 30EBC	0.2 kg (5.2%)	75 %	30
Grain	Strzegom Barwiący	0.06 kg (1.6%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Cashmere	5 g	---	8.8 %
First Wort	Sabro	5 g	---	15 %
Boil	Sabro	5 g	50 min	15 %
Boil	Sabro	5 g	20 min	15 %
Boil	Cashmere	10 g	10 min	8.8 %
Boil	Sabro	10 g	10 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---