

Black IPA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **66**
- SRM **22.5**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **25.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Smoked Malt	0.5 kg (8.3%)	81 %	6
Grain	Viking Pale Ale malt	4 kg (66.7%)	80 %	5
Grain	Viking Pilsner malt	0.5 kg (8.3%)	82 %	4
Grain	Karmelowy Jasny 30EBC	0.4 kg (6.7%)	75 %	30
Grain	Strzegom Karmel 150	0.3 kg (5%)	75 %	150
Grain	Carafa III	0.15 kg (2.5%)	70 %	1034
Grain	Simpsons - Roasted Barley	0.15 kg (2.5%)	70 %	1084

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	13.2 %
Aroma (end of boil)	Hallertau Blanc	70 g	5 min	11 %
Whirlpool	Centennial	100 g	15 min	10.5 %
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Dry Hop	Centennial	60 g	5 day(s)	10.5 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis
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