

Black IPA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **76**
- SRM **31.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **28.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5.5 kg (88%)	80 %	5
Grain	Carafa II	0.5 kg (8%)	70 %	812
Grain	Black Barley (Roast Barley)	0.25 kg (4%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	50 g	60 min	13 %
Boil	Citra	25 g	10 min	12 %
Aroma (end of boil)	Mosaic	25 g	1 min	10 %
Dry Hop	Citra	25 g	3 day(s)	12 %
Dry Hop	Cascade	50 g	3 day(s)	6 %
Dry Hop	Mosaic	25 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale