

Black ipa

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **64**
- SRM **28.5**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **11.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **10.9 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (79.5%)	80 %	5
Grain	Caraaroma	0.125 kg (3.3%)	78 %	400
Grain	Biscuit Malt	0.2 kg (5.3%)	79 %	45
Grain	Carafa II	0.3 kg (7.9%)	70 %	820
Sugar	Candi Sugar, Clear	0.15 kg (4%)	78.3 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	13.5 %
Boil	Cascade	20 g	30 min	6 %
Boil	Cascade	20 g	15 min	6 %
Boil	Citra	20 g	5 min	13.5 %
Whirlpool	Citra	15 g	10 min	13.5 %
Whirlpool	Cascade	15 g	10 min	6 %
Dry Hop	Citra	30 g	5 day(s)	13.5 %
Dry Hop	Cascade	30 g	5 day(s)	6 %

Yeasts

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