

Black IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **72**
- SRM **26.2**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.5 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **55.8C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.8 kg (77.6%)	82 %	4
Grain	Weyermann - Carapils	0.2 kg (4.1%)	78 %	4
Grain	Abbey Malt Weyermann	0.15 kg (3.1%)	75 %	45
Grain	Weyermann - Carafa Special I	0.5 kg (10.2%)	70 %	900
Sugar	Cane (Beet) Sugar	0.25 kg (5.1%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	25 g	60 min	15 %
Boil	Galaxy	25 g	10 min	15 %
Whirlpool	Galaxy	50 g	15 min	15 %
Dry Hop	Galaxy	125 g	2 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis