

# Black IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **60**
- SRM **39.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24 liter(s)**

## Mash information

- Mash efficiency **67 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (76.9%)	80 %	5
Grain	Rye Malt	1 kg (15.4%)	63 %	10
Grain	Carafa III special	0.5 kg (7.7%)	1 %	1500

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	60 min	10 %
Boil	Sabro	10 g	60 min	15 %
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Boil	Sabro	10 g	10 min	15 %
Whirlpool	Mosaic	30 g	15 min	10 %
Whirlpool	Sabro	30 g	15 min	15 %
Dry Hop	Mosaic	50 g	3 day(s)	10 %
Dry Hop	Sabro	50 g	3 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---