

# BLACK AIPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **62**
- SRM **29**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.6 kg (83.6%)	80 %	5
Grain	Strzegom Karmel 300	0.4 kg (7.3%)	70 %	299
Grain	Chocolate Malt (UK)	0.3 kg (5.5%)	73 %	887
Grain	Carafa II	0.2 kg (3.6%)	70 %	812

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	20 g	60 min	15.5 %
Boil	El Dorado	20 g	20 min	15 %
Whirlpool	Sabro	40 g	10 min	15 %
Dry Hop	Sabro	40 g	3 day(s)	15 %

## Yeasts

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