

# BLACK IPA

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **72**
- SRM **34**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **24.8 liter(s)**
- Total mash volume **32.3 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **24.8 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **31.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	7 kg (87.5%)	80 %	5
Sugar	Cukier kandyzowany brązowy	0.5 kg (6.3%)	78.3 %	542
Grain	Carafa Special II	0.5 kg (6.3%)	70 %	1100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Falconer's Flight	45 g	60 min	10.3 %
Boil	Falconer's Flight	30 g	30 min	10.3 %
Boil	Falconer's Flight	25 g	15 min	10.3 %
Boil	Falconer's Flight	25 g	10 min	10.3 %
Boil	Falconer's Flight	25 g	5 min	10.3 %

## Yeasts

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