

# BLACK IPA 2019 konkurs

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **64**
- SRM **28.5**
- 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 **70 min**
- Evaporation rate **5 %/h**
- Boil size **24.3 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **28.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **23 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **7.1 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (78.3%)	80 %	5
Grain	Bestmalz Carmel Pils	0.5 kg (8.7%)	75 %	5
Grain	płatki jęczmienne	0.25 kg (4.3%)	60 %	4
Grain	Carafa III	0.3 kg (5.2%)	70 %	1034
Grain	Jęczmień palony	0.2 kg (3.5%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	100 g	15 min	13.2 %
Dry Hop	Mosaic	100 g	5 day(s)	12 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	2 g	Mash	70 min