

# BLACK IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **59**
- SRM **34.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **24 %/h**
- Boil size **24.3 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **20 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **78C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (74.1%)	85 %	7
Grain	Weyermann pszeniczny jasny	0.8 kg (14.8%)	80 %	6
Grain	Weyermann - Carafa III	0.3 kg (5.6%)	70 %	1024
Grain	Weyermann - Chocolate Wheat	0.3 kg (5.6%)	74 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sorachi Ace	30 g	60 min	13.3 %
Aroma (end of boil)	Książęcy	15 g	10 min	7 %
Aroma (end of boil)	Sorachi Ace	20 g	10 min	10 %
Whirlpool	Chinook	25 g	0 min	13 %
Whirlpool	Simcoe	25 g	0 min	13.2 %
Dry Hop	Chinook	25 g	3 day(s)	13 %
Dry Hop	Simcoe	25 g	3 day(s)	13.2 %
Dry Hop	Książęcy	35 g	3 day(s)	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	200 ml	Lallemand