

# Black IPA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **43**
- SRM **21**
- Style **American 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (84.7%)	79 %	6
Grain	Weyermann - Carafa I	0.25 kg (4.2%)	70 %	690
Grain	Strzegom Czekoladowy jasny	0.25 kg (4.2%)	68 %	400
Grain	Karmelowy żytni Strzegom	0.25 kg (4.2%)	75 %	150
Grain	Fawcett - Pale Crystal	0.15 kg (2.5%)	72.8 %	90

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equanot	30 g	15 min	13.1 %
Boil	Centennial	30 g	15 min	10.5 %
Whirlpool	Simcoe	70 g	5 min	13.2 %
Dry Hop	Mosaic	50 g	5 day(s)	10 %

## Yeasts

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