

# Czarne IPA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **54**
- SRM **30.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.7 liter(s)**
- Total mash volume **31.7 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **24.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (85.1%)	80 %	5
Grain	Carafa	0.4 kg (5.7%)	70 %	664
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (4.3%)	73 %	1001
Grain	Jęczmień palony	0.1 kg (1.4%)	55 %	985
Grain	Karmelowy żytni Strzegom	0.25 kg (3.5%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	40 min	15.5 %
Boil	Citra	20 g	15 min	12 %
Boil	Sorachi Ace	20 g	15 min	10 %
Boil	Citra	15 g	7 min	12 %
Boil	Sorachi Ace	15 g	7 min	10 %
Whirlpool	Citra	25 g	10 min	12 %
Whirlpool	Sorachi Ace	25 g	10 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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us-05	Ale	Slant	100 ml	---
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