

# CZARNA IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **50**
- SRM **31.3**
- 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 **60 min**
- Evaporation rate **13 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale / Pils śrut	5 kg (78.1%)	79 %	5
Grain	Weyermann - Carafa III	0.25 kg (3.9%)	65 %	1500
dodany po II przerwie				
Grain	Castle Malting - Wheat Black	0.15 kg (2.3%)	77 %	1400
dodany po II przerwie				
Grain	Płatki pszeniczne	0.5 kg (7.8%)	85 %	3
Grain	Płatki owsiane	0.5 kg (7.8%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus - granulát	15 g	60 min	14 %
Boil	Citra - granulát	20 g	15 min	13 %
Boil	Amarillo - granulát	20 g	15 min	8.3 %
Whirlpool	Citra - granulát	20 g	15 min	13 %
W 75°C				
Whirlpool	Amarillo - granulát	20 g	15 min	8.3 %

W 75°C				
Dry Hop	Citra - granulat	50 g	4 day(s)	13 %
Dry Hop	Amarillo - granulat	50 g	4 day(s)	8.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	16 g	---

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1.09 g	Boil	10 min