

# Czarny owies

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **38**
- SRM **30.6**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.8 kg (70.4%)	80 %	5
Grain	Płatki owsiane	1 kg (18.5%)	85 %	3
Grain	Jęczmień palony	0.3 kg (5.6%)	55 %	1000
Grain	Carafa III	0.3 kg (5.6%)	70 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Irish Ale	Ale	Slant	300 ml	Wyeast Labs