

# Czarny charakter

- Gravity **14.5 BLG**
- ABV ---
- IBU **32**
- SRM **51.8**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **17.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.5 kg (59.8%)	82 %	4
Grain	Płatki owsiane	1 kg (17.1%)	78 %	3
Grain	Abbey Castle	0.4 kg (6.8%)	80 %	45
Grain	Weyermann Carafa Special	0.3 kg (5.1%)	80 %	800
Grain	Jęczmień palony	0.25 kg (4.3%)	55 %	985
Grain	Caraaroma	0.2 kg (3.4%)	78 %	400
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (3.4%)	73 %	1001

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	Chinook	15 g	30 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale