

# Czarny Pan

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **22**
- SRM **25.4**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

## Steps

- Temp **70 C**, Time **120 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **78.4C**
- Add grains
- Keep mash **120 min** at **70C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.5 kg (53.4%)	80 %	7
Grain	Strzegom Pilzneński	1 kg (15.3%)	80 %	4
Grain	Oats, Flaked	0.8 kg (12.2%)	80 %	2
Grain	Caraaroma	0.5 kg (7.6%)	78 %	400
Grain	Karmelowy Czerwony	0.2 kg (3.1%)	75 %	60
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (3.1%)	73 %	1001
Grain	Simpsons - Coffee Malt	0.2 kg (3.1%)	74 %	296
Grain	Brown Malt (British Chocolate)	0.1 kg (1.5%)	70 %	128
Grain	Jęczmień palony	0.05 kg (0.8%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Fuggles	15 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Dry	11.5 g	Safale
-------------	-----	-----	--------	--------