

Czarno to widze

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU ---
- SRM **22.5**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **14.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.9 kg (40%)	81 %	4
Grain	Monachijski	1.1 kg (23.2%)	80 %	16
Grain	Pszeniczny	0.5 kg (10.5%)	85 %	4
Grain	Karmelowy Ciemny	0.25 kg (5.3%)	75 %	600
Grain	Płatki owsiane	0.8 kg (16.8%)	85 %	3
Grain	Jęczmień palony	0.2 kg (4.2%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Fuggles	50 g	60 min	5.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale