

Ciemniak

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **25**
- SRM **38**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **16.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **9.1 liter(s)** of **76C** water or to achieve **16.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (57.1%)	80 %	5
Grain	Strzegom pszenica prażona	0.3 kg (8.6%)	70 %	1000
Grain	Strzegom Pilznieński	0.5 kg (14.3%)	80 %	4
Grain	Jęczmień palony	0.2 kg (5.7%)	55 %	985
Grain	Płatki owsiane	0.5 kg (14.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	20 g	50 min	5.2 %
Boil	Chinook	5 g	30 min	13 %
Aroma (end of boil)	Cascade PL	10 g	1 min	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	700 ml	Safale