

Czarnobóg

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **22**
- SRM **27.4**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **68 C**, Time **90 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Jęczmień prażony	0.2 kg (3.7%)	70 %	1000
Grain	Strzegom Żyto prażone	0.2 kg (3.7%)	65 %	1100
Grain	Strzegom Karmel 30	0.5 kg (9.3%)	75 %	30
Adjunct	Płatki owsiane	0.5 kg (9.3%)	85 %	3
Grain	Strzegom Monachijski typ I	2.5 kg (46.3%)	78 %	16
Grain	Weyermann - Melanoiden Malt	1 kg (18.5%)	75 %	70
Grain	Płatki pszeniczne	0.5 kg (9.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Saaz (Czech Republic)	15 g	60 min	4.16 %
First Wort	Epic	15 g	60 min	3.7 %
Aroma (end of boil)	Equinox	30 g	5 min	16.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	---