

Czarna DUpa

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **47**
- SRM **33.6**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **34.6 liter(s)**

Steps

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

Mash step by step

- Heat up **26 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (57.7%)	80 %	16
Grain	Strzegom Wiedeński	2 kg (23.1%)	79 %	10
Grain	Pilzneński	1 kg (11.5%)	81 %	4
Grain	Palone ziarno jęczmienia	0.2 kg (2.3%)	--- %	1200
Grain	chocolate Castle Malting	0.2 kg (2.3%)	75 %	900
Grain	Black - Castle Malting	0.26 kg (3%)	55 %	1250

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hercules	60 g	20 min	17.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	1500 ml	fermentis

Notes

- Drożdże dodane 08.07.2022 g. 22.00
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