

PORTER ANGELSKI

- Gravity **12.9 BLG**
- ABV ---
- IBU **38**
- SRM **26**
- Style **Brown 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 **31.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.8 kg (82.1%)	80 %	5
Grain	Monachijski	0.6 kg (10.3%)	80 %	16
Grain	Caraaroma	0.3 kg (5.1%)	78 %	400
Grain	Strzegom Czekoladowy ciemny	0.15 kg (2.6%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	40 g	60 min	8 %
Boil	Fuggles	20 g	20 min	4.5 %
Boil	Fuggles	20 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale