

## Brown porter

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **25**
- SRM **23.2**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

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

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (35.1%)	80 %	5
Grain	Oats, Flaked	0.4 kg (7%)	80 %	2
Grain	Monachijski	2 kg (35.1%)	80 %	16
Grain	Strzegom Karmel 150	0.5 kg (8.8%)	75 %	150
Grain	Czekoladowy	0.2 kg (3.5%)	60 %	800
Grain	Strzegom Barwiący	0.1 kg (1.8%)	68 %	1300
Grain	Strzegom Karmel 30	0.5 kg (8.8%)	75 %	50

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	30 min	8.5 %
Boil	Chinook	30 g	15 min	8.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
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Fining	Whirlfloc	2.5 g	Boil	10 min
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