

BrownieeEEe

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **24.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **16.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (65.4%)	80 %	5
Grain	Fawcett - Amber malt	0.5 kg (9.3%)	75 %	140
Grain	Fawcett - Brown	0.5 kg (9.3%)	72 %	180
Grain	Fawcett - Pale Chocolate	0.2 kg (3.7%)	71 %	600
Grain	Weyermann - Rye Malt	0.5 kg (9.3%)	85 %	7
Grain	Fawcett - Chocolate	0.15 kg (2.8%)	60 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	15 g	60 min	12.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile