

Brown Porter

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **23**
- SRM **24.8**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.6 kg (68.4%)	80 %	5
Grain	Brown Malt (British Chocolate)	0.3 kg (7.9%)	70 %	128
Grain	Strzegom Karmel 150	0.3 kg (7.9%)	75 %	150
Zamiast tego użyc crystal 120				
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (2.6%)	73 %	1001
dac 200g				
Grain	Płatki owsiane	0.4 kg (10.5%)	85 %	3
Grain	Carafa II	0.1 kg (2.6%)	70 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	15 g	60 min	6.1 %
mozna dac 20				
Boil	Fuggles	20 g	15 min	6.1 %
mozna dac 25				

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale