

Porter

- Gravity **14 BLG**
- ABV ---
- IBU **33**
- SRM **30.4**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **20.3 liter(s)**
- Trub loss **11 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **24.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Bestt Pale Ale	5 kg (83%)	80.5 %	6
Grain	Fawcett - Brown	0.4 kg (6.6%)	72 %	180
Grain	Fawcett - Dark Crystal	0.3 kg (5%)	71 %	300
Grain	Caraaroma	0.2 kg (3.3%)	78 %	400
Grain	Weyermann - Carafa I	0.125 kg (2.1%)	70 %	690

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	25 g	60 min	10.5 %
Boil	East Kent Goldings	25 g	10 min	5.1 %

Yeasts

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