

## Brown ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **13.7**
- Style **Northern English Brown Ale**

### 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 **3.5 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **24.2 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **72C**
- Sparge using **14.4 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	4.5 kg (83.8%)	80 %	5
Grain	Brown Malt (British Chocolate)	0.4 kg (7.4%)	70 %	128
Grain	Caramel/Crystal Malt - 120L	0.16 kg (3%)	72 %	200
Grain	Fawcett - Pale Chocolate	0.14 kg (2.6%)	71 %	600
Grain	Biscuit Malt	0.17 kg (3.2%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	21 g	60 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Thames Valley Ale	Ale	Slant	100 ml	Wyeast Labs