

## Brown ale

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **18**
- SRM **12**
- Style **Northern English Brown Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **15 min**

### Mash step by step

- Heat up **17.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **77C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (87.1%)	80 %	7
Grain	Caramel/Crystal Malt - 20L	0.18 kg (3.1%)	75 %	39
Grain	Caraamber	0.18 kg (3.1%)	75 %	59
Grain	Briess - Caramel Malt 90L	0.15 kg (2.6%)	75 %	177
Grain	Biscuit Malt	0.11 kg (1.9%)	79 %	45
Grain	Briess - Black Malt	0.06 kg (1%)	55 %	985
Grain	Briess - Chocolate Malt	0.06 kg (1%)	60 %	690

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	16.25 g	60 min	5.2 %
Boil	Golding	16.25 g	60 min	5 %
Boil	Fuggles	11.25 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Wyeast - 1028 London Ale	Ale	Liquid	1.25 ml	Wyeast Labs
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