

## Brown Ale #13

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **21**
- SRM **14.3**
- Style **Northern English Brown Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.7 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

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

### Mash step by step

- Heat up **15.7 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	4.5 kg (85.7%)	81 %	5
Grain	Brown Malt (British Chocolate)	0.35 kg (6.7%)	70 %	180
Grain	Weyermann - Caraamber	0.3 kg (5.7%)	75 %	65
Grain	Briess - Dark Chocolate Malt	0.1 kg (1.9%)	60 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Simcoe	45 g	10 min	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP099 - Super High Gravity Ale Yeast	Ale	Slant	200 ml	White Labs