

# English Brown Porter

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- Gravity **12.1 BLG**
- ABV ---
- IBU **35**
- SRM **29.5**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **67 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **10 min** at **67C**
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3.5 kg (77.8%)	80 %	8
Grain	Brown Malt (British Chocolate)	0.5 kg (11.1%)	70 %	128
Grain	Red Crystal	0.4 kg (8.9%)	75 %	400
Grain	Briess - Chocolate Malt	0.1 kg (2.2%)	60 %	690

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	55 g	60 min	4.5 %
Aroma (end of boil)	Fuggles	20 g	10 min	4.5 %