

# English Brown Porter

- Gravity **12.1 BLG**
- ABV ---
- IBU **33**
- SRM ---
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.1 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 **16.6 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 **21.1 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale	4.3 kg (77.8%)	--- %	---
Grain	Brown	0.6 kg (10.8%)	--- %	---
Grain	Red crystal	0.5 kg (9%)	--- %	---
Grain	Chocolate	0.13 kg (2.4%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	65 g	60 min	4.5 %
Boil	Fuggles	30 g	10 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Empire Ale M15	Ale	Dry	10 g	---

## Notes

- Do 15 l wody o temp 69\* wsypać słoły oprócz chocolate i zacierać w temp 66-67\* przez 90 min, potem wsypać chocolate i trzymać 10\*. Podnieść do 78 na 5 min. Wyladzac 16-17 l wody 78\*  
Gotowanie 70\*  
Chmiel 65g na 60 min  
30g na 10 min

Ferm  
Burzliwa 18-21\* 10-14 dni  
Cicha 18-21\* 7 dni  
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