

## Brown ale

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU ---
- SRM **15.2**
- Style **American Pale Ale**

### 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 **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **15.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (77.7%)	80 %	5
Grain	Carahell	0.4 kg (7.8%)	77 %	26
Grain	Weyermann - Carafa II	0.2 kg (3.9%)	70 %	837
Grain	Strzegom Monachijski typ II	0.55 kg (10.7%)	79 %	22

### Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Cascade	30 g	5 min	6 %
Mash	Saaz (USA)	30 g	60 min	3.75 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP013 - London Ale Yeast	Ale	Liquid	40 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
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Water Agent	kwask mlekowy 80%	4 g	Mash	10 min
Fining	whirlfloc	0.5 g	Boil	55 min

## Notes

- Pierwszy raz Starsan i nowy filtrator.  
Można było dać więcej wody do zacierania.  
*Feb 6, 2021, 2:47 PM*