

Brown Ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **16.2**
- Style **Northern English Brown Ale**

Batch size

- Expected quantity of finished beer **8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **10.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.3 liter(s)**
- Total mash volume **8.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **6.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **10.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.67 kg (79.9%)	80 %	5
Grain	Pszeniczny	0.19 kg (9.1%)	85 %	4
Grain	Fawcett - Crystal	0.125 kg (6%)	70 %	160
Grain	Fawcett - Pale Chocolate	0.105 kg (5%)	71 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	9.5 g	60 min	8.8 %
Boil	East Kent Goldings	7 g	3 min	5.1 %

Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek wapnia	1.5 g	Mash	60 min