

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 |