

Porter

- Gravity **14 BLG**
- ABV ---
- IBU **33**
- SRM **30.4**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **20.3 liter(s)**
- Trub loss **11 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **24.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|-----------------|--------|-----|
| Grain | BESTMALZ - Bestt Pale Ale | 5 kg (83%) | 80.5 % | 6 |
| Grain | Fawcett - Brown | 0.4 kg (6.6%) | 72 % | 180 |
| Grain | Fawcett - Dark Crystal | 0.3 kg (5%) | 71 % | 300 |
| Grain | Caraaroma | 0.2 kg (3.3%) | 78 % | 400 |
| Grain | Weyermann - Carafa I | 0.125 kg (2.1%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Target | 25 g | 60 min | 10.5 % |
| Boil | East Kent Goldings | 25 g | 10 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |