

Flood

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **26**
- SRM **20.6**
- Style **Brown Porter**

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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **13.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **16.3 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 | 3.5 kg (76.9%) | 80 % | 5 |
| Grain | Fawcett - Brown | 0.5 kg (11%) | 72 % | 180 |
| Grain | Special B Malt | 0.25 kg (5.5%) | 65.2 % | 315 |
| Grain | Biscuit Malt | 0.1 kg (2.2%) | 79 % | 45 |
| Grain | Carafa II | 0.1 kg (2.2%) | 70 % | 812 |
| Grain | Fawcett - Pale Chocolate | 0.1 kg (2.2%) | 71 % | 600 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Cascade | 15 g | 60 min | 6 % |
| Boil | Cascade | 10 g | 20 min | 6 % |
| Boil | Willamette | 15 g | 60 min | 5 % |
| Boil | Willamette | 10 g | 20 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |