

Bitter

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **34**
- SRM **11.9**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.3 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **24.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 3.8 kg (84.4%) | 80 % | 5 |
| Grain | Caramel/Crystal Malt - 120L | 0.4 kg (8.9%) | 72 % | 236 |
| Grain | Special B Malt | 0.2 kg (4.4%) | 65.2 % | 350 |
| Grain | Weyermann - Acidulated Malt | 0.1 kg (2.2%) | 80 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Fuggles | 35 g | 60 min | 5.6 % |
| Boil | Fuggles | 35 g | 30 min | 5.6 % |
| Boil | Fuggles | 10 g | 5 min | 5.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 100 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|------|-----|------|--------|
| Fining | mech | 5 g | Boil | 15 min |
|--------|------|-----|------|--------|