

cascade pale ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **56**
- SRM **6.1**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt | 5 kg (90.9%) | 82 % | 4 |
| Grain | Caramel/Crystal Malt - 30L | 0.5 kg (9.1%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|---------|--------|--------|------------|
| Boil | Cascade | 15 g | 90 min | 6 % |
| Boil | Cascade | 20 g | 60 min | 6 % |
| Boil | Cascade | 60 g | 30 min | 6 % |
| Whirlpool | Cascade | 55 g | 0 min | 6 % |
| First Wort | Cascade | 50 g | 2 min | 6 % |