

bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **32**
- SRM **8.1**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.5 kg (78.1%) | 80 % | 5 |
| Grain | Red Active Viking | 0.2 kg (6.3%) | 80 % | 35 |
| Grain | Abbey Castle | 0.2 kg (6.3%) | 80 % | 45 |
| Grain | Castlemalting Crystal | 0.3 kg (9.4%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Magnum | 13 g | 60 min | 10.5 % |
| Boil | Willamette | 25 g | 20 min | 5 % |
| Boil | Willamette | 25 g | 5 min | 5 % |