

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 %