

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **57**
- SRM **10.5**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **48 liter(s)**
- Trub loss **5 %**
- Size with trub loss **50.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **63.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **75.8 liter(s)**
- Total mash volume **91 liter(s)**

Steps

- Temp **70 C**, Time **60 min**

Mash step by step

- Heat up **75.8 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **63.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (46.2%)	80 %	5
Grain	Viking Vienna Malt	3 kg (19.8%)	79 %	7
Grain	Viking Munich Malt	3 kg (19.8%)	78 %	18
Grain	Bestmalz Red X	1 kg (6.6%)	79 %	30
Grain	Cara-Pils/Dextrine	1 kg (6.6%)	72 %	4
Grain	Black Barley (Roast Barley)	0.16 kg (1.1%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	100 g	60 min	15.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Farmgarden	Ale	Slant	50 ml	Lallemand