

German Lager

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **3.6**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **13.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.2 kg (50%)	82 %	4
Grain	Viking Pale Ale malt	2.2 kg (50%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Aroma (end of boil)	Tradition	20 g	10 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	irish moss	5 g	Boil	10 min