

# lager

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **40**
- SRM **8.9**
- Style **Vienna Lager**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **35.2 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **50 C**, Time **30 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **35.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (29%)	80 %	5
Grain	Viking Pilsner malt	2 kg (29%)	82 %	4
Grain	Red ale viking malt	1.5 kg (21.7%)	75 %	70
Grain	Pszeniczny	1 kg (14.5%)	85 %	4
Grain	Rice, Flaked	0.4 kg (5.8%)	70 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	12 %
Boil	Puławski	25 g	30 min	6.9 %
Boil	Marynka	25 g	15 min	8.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-23	Lager	Dry	11 g	---