

## Lager #4

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **22**
- SRM **4.2**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **12.9 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **8.8 liter(s)** of strike water to **56.5C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **12.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (80%)	82 %	4
Grain	Strzegom Monachijski typ I	0.25 kg (10%)	79 %	16
Grain	Płatki owsiane	0.25 kg (10%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	70 min	4 %
Boil	Lublin (Lubelski)	5 g	20 min	4 %
Boil	Lublin (Lubelski)	5 g	2 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis