

## Lager 2 Opt

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **19**
- SRM **4**
- Style **Standard American Lager**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **54 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **20 min** at **54C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński Jasny Optima	5 kg (90.9%)	81 %	4
Grain	Wiedeński Optima	0.5 kg (9.1%)	81 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Brewers Gold	25 g	60 min	4.5 %
Aroma (end of boil)	Hallertau Spalt Select	50 g	15 min	2.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	100 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirflfloc	1 g	Boil	10 min