

Lager 1 Opt

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **17**
- SRM **3.9**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 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 **16.8 liter(s)** of **76C** water or to achieve **27.8 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)	Hersbrucker	25 g	15 min	4.3 %

Yeasts

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

Extras

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