

# letni lager

- Gravity **12.9 BLG**
- ABV ---
- IBU **28**
- SRM **5.1**
- Style **Standard American Lager**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **21.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **15.2 liter(s)**

## Steps

- Temp **56 C**, Time **1 min**
- Temp **52 C**, Time **9 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.1 liter(s)** of strike water to **57.9C**
- Add grains
- Keep mash **9 min** at **52C**
- Keep mash **1 min** at **56C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **21.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.57 kg (86.9%)	81 %	4
Grain	Monachijski	0.38 kg (9.2%)	80 %	16
Grain	karmelowy	0.1 kg (2.4%)	70 %	30
Grain	zakwaszający	0.06 kg (1.5%)	70 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Premiant	35 g	60 min	4 %
Boil	Saaz (Czech Republic)	15 g	20 min	4.5 %
Boil	Saaz (Czech Republic)	25 g	10 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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WLP800 - Pilsner Lager Yeast	Lager	Liquid	50 ml	White Labs
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