

# Lager

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- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **41**
- SRM **5.1**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1 kg (50%)	81 %	4
Grain	Monachijski	1 kg (50%)	80 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	25 g	60 min	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	1000 ml	Fermentum Mobile