

# Lager

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **28**
- SRM **17.7**
- Style **Premium American Lager**

## Batch size

- Expected quantity of finished beer **39 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **49.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **40 liter(s)**

## Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **30 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **29.4 liter(s)** of **76C** water or to achieve **49.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (50%)	81 %	4
Grain	Karmelowy Czerwony	3 kg (30%)	75 %	150
Grain	Viking Malt Monachijski typ II	2 kg (20%)	79 %	21

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	50 min	8.8 %
Boil	Lublin (Lubelski)	20 g	50 min	4 %
Dry Hop	Marynka	50 g	3 day(s)	8.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	20 g	---