

# Lager Kacpra

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **6.1**
- Style **Standard American Lager**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **24.7 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **19.9 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (84.2%)	81 %	4
Grain	Strzegom Wiedeński	0.6 kg (12.6%)	79 %	10
Grain	Strzegom Karmel 150	0.15 kg (3.2%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	20 min	10 %
Boil	Enigma (AUS)	40 g	5 min	17.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M54 California Lager	Lager	Dry	33 g	MJ

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirfloc	0.5 g	Boil	5 min
Water Agent	NaCl	7 g	Mash	60 min