

# lager

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **20**
- SRM **5.2**
- Style **Vienna Lager**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name        | Amount     | Yield | EBC |
|-------|-------------|------------|-------|-----|
| Grain | Pilzneński  | 2 kg (50%) | 81 %  | 4   |
| Grain | Monachijski | 2 kg (50%) | 80 %  | 16  |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 25 g   | 20 min | 4 %        |
| Boil    | Lublin (Lubelski) | 25 g   | 15 min | 4 %        |
| Boil    | amarillo          | 10 g   | 15 min | 8.5 %      |
| Boil    | Cascade           | 5 g    | 15 min | 6 %        |

## Yeasts

| Name                               | Type  | Form | Amount | Laboratory      |
|------------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's M76 Bavarian Lager | Lager | Dry  | 10 g   | Mangrove Jack's |