

# Mój lager

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **48**
- SRM **4.1**
- Style **German Pilsner (Pils)**

## 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 **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield  | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen | 3.4 kg (75.6%) | 80.5 % | 4   |
| Grain | Strzegom Wiedeński     | 0.6 kg (13.3%) | 79 %   | 10  |
| Grain | Karmelowy Jasny 30EBC  | 0.15 kg (3.3%) | 75 %   | 30  |
| Grain | Płatki owsiane         | 0.35 kg (7.8%) | 60 %   | 3   |

## Hops

| Use for | Name         | Amount | Time   | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil    | Amarillo     | 40 g   | 10 min | 9.5 %      |
| Boil    | Styrian Wolf | 25 g   | 60 min | 11.1 %     |