

# Mój lager

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- 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 %