

# Potrzanowski lager

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **28**
- SRM **4.7**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **71.2 liter(s)**
- Total mash volume **89 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **71.2 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **47.8 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount         | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński         | 10.5 kg (59%)  | 81 %  | 4   |
| Grain | Monachijski        | 3 kg (16.9%)   | 80 %  | 16  |
| Grain | Pszeniczny         | 0.8 kg (4.5%)  | 85 %  | 4   |
| Grain | Strzegom Wiedeński | 3.5 kg (19.7%) | 79 %  | 10  |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | styrian eureka         | 20 g   | 60 min | 13 %       |
| Boil    | Hallertau Spalt Select | 200 g  | 15 min | 3.1 %      |
| Boil    | styrian cardinal       | 50 g   | 60 min | 8.5 %      |