

# Jasne, że do pełna!

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **19**
- SRM **3.4**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **52.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **54.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **4 %/h**
- Boil size **59.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **33 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **37.6 liter(s)** of **76C** water or to achieve **59.6 liter(s)** of wort

## Fermentables

| Type  | Name        | Amount       | Yield | EBC |
|-------|-------------|--------------|-------|-----|
| Grain | Pilznieński | 11 kg (100%) | 81 %  | 4   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 30 g   | 60 min | 9 %        |
| Boil                | Lublin (Lubelski) | 50 g   | 20 min | 3.7 %      |
| Aroma (end of boil) | Lublin (Lubelski) | 50 g   | 5 min  | 3.7 %      |

## Yeasts

| Name                                  | Type  | Form  | Amount  | Laboratory |
|---------------------------------------|-------|-------|---------|------------|
| Bavarian Lager M76<br>Mongrove Jack's | Lager | Slant | 1000 ml | ---        |