

# bawaria pils

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- Gravity **12.1 BLG**
- ABV ---
- IBU **35**
- 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 **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**
- Temp **74 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **74C**
- Keep mash **1 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński         | 4 kg (90.9%)  | 80 %  | 4   |
| Grain | Weyermann - Carapils        | 0.3 kg (6.8%) | 78 %  | 4   |
| Grain | Weyermann - Melanoiden Malt | 0.1 kg (2.3%) | 81 %  | 53  |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Magnum            | 20 g   | 60 min | 13.5 %     |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g   | 10 min | 4 %        |

## Yeasts

| Name             | Type  | Form   | Amount | Laboratory |
|------------------|-------|--------|--------|------------|
| brewmaster lager | Lager | Liquid | 300 ml | erbslok    |