

# Zwykły pils

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **47**
- SRM **4.3**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **5 %/h**
- Boil size **18.5 liter(s)**

## Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **4.37 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **21.5 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **5 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

## Fermentables

| Type  | Name        | Amount     | Yield | EBC |
|-------|-------------|------------|-------|-----|
| Grain | Pilzneński  | 3 kg (75%) | 81 %  | 4   |
| Grain | Vienna Malt | 1 kg (25%) | 78 %  | 8   |

## Hops

| Use for             | Name                  | Amount | Time   | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil                | Magnum                | 25 g   | 80 min | 11 %       |
| Aroma (end of boil) | Saaz (Czech Republic) | 20 g   | 10 min | 4.5 %      |

## Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Saflager W 34/70 | Lager | Dry  | 11.5 g | Fermentis  |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 5 g    | Boil    | 10 min |