

# Polski Pils próba

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **23**
- SRM **5.1**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **14.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **14.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **11.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 2.65 kg (81.5%) | 80 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.6 kg (18.5%)  | 79 %  | 16  |

## Hops

| Use for   | Name              | Amount | Time   | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil      | lunga             | 11 g   | 60 min | 11 %       |
| Whirlpool | Lublin (Lubelski) | 40 g   | 0 min  | 4 %        |