

## polski pils

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **39**
- SRM **3**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **2 %**
- Size with trub loss **36.4 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **41.7 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **29.7 liter(s)** of **76C** water or to achieve **41.7 liter(s)** of wort

### Fermentables

| Type  | Name       | Amount      | Yield | EBC |
|-------|------------|-------------|-------|-----|
| Grain | Pilzneński | 6 kg (100%) | 81 %  | 4   |

### Hops

| Use for             | Name    | Amount | Time    | Alpha acid |
|---------------------|---------|--------|---------|------------|
| First Wort          | Marynka | 20 g   | 120 min | 8.8 %      |
| Boil                | Marynka | 30 g   | 45 min  | 8.8 %      |
| Aroma (end of boil) | Marynka | 50 g   | 5 min   | 8.8 %      |

### Yeasts

| Name                        | Type  | Form  | Amount | Laboratory  |
|-----------------------------|-------|-------|--------|-------------|
| Wyeast - 2278<br>Czech Pils | Lager | Slant | 250 ml | Wyeast Labs |