

PePe Wróc

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **43**
- SRM **3.7**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **54.6C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **70C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.6 kg (80%) | 81 % | 4 |
| Grain | Briess - Carapils Malt | 0.3 kg (6.7%) | 74 % | 3 |
| Grain | Strzegom Monachijski typ I | 0.6 kg (13.3%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------------------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 12.5 % |
| Whirlpool | Saaz (Czech Republic) | 50 g | 10 min | 3.3 % |
| Whirlpool | tettnanger | 50 g | 10 min | 3.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|-------|--------|------------|
| Saflager S-23 | Lager | Slant | 200 ml | Fermentis |