

Polski Pils

- Gravity **11.9 BLG**
- ABV ---
- IBU **37**
- SRM **3.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **20 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.5 kg (87.5%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (12.5%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Boil | Marynka | 15 g | 30 min | 10 % |
| Boil | Lublin (Lubelski) | 15 g | 25 min | 4 % |
| Whirlpool | Lublin (Lubelski) | 15 g | 0 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|-------|------|--------|------------|
| W34/70 | Lager | Dry | 11.5 g | --- |