

Polski Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **4**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 4.5 kg (94.7%) | 81 % | 5 |
| Grain | Weyermann - Carapils | 0.25 kg (5.3%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|----------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Whirlpool | Lublin (Lubelski) | 30 g | 5 min | 4 % |
| Whirlpool | Sybilla | 30 g | 5 min | 3.5 % |
| Dry Hop | Lublin (Lubelski) | 30 g | 3 day(s) | 4 % |
| Dry Hop | Sybilla | 30 g | 3 day(s) | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 300 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-------------------|--------|---------|--------|
| Other | Słód zakwaszający | 100 g | Mash | 60 min |