

polski pils

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **38**
- SRM **5**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.2 liter(s)**
- Total mash volume **29.9 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **23.2 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński | 6 kg (90.4%) | 80 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.635 kg (9.6%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | marynka | 35 g | 60 min | 8.4 % |
| Boil | lubelski | 35 g | 15 min | 6 % |
| Boil | lubelski | 30 g | 5 min | 6 % |
| Aroma (end of boil) | lubelski | 30 g | 0 min | 6 % |
| Aroma (end of boil) | marynka | 20 g | 0 min | 8.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|-------|---------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Culture | --- g | Fermentum Mobile |

Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|--------|------------------|--------|---------|--------|
| Fining | tabletko wirfloc | 2 g | Boil | 10 min |