Polski Pils

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **27**
- SRM **3.7**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **70 liter(s)**
- Trub loss **5 %**
- Size with trub loss **73.5 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **91.2 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **42 liter(s)**
- Total mash volume **56 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 **42 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 **63.2 liter(s)** of **76C** water or to achieve **91.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	12.25 kg *(87.5%)*	80 %	4
Grain	Strzegom Monachijski typ I	1.75 kg *(12.5%)*	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Boil	Marynka	25 g	30 min	10 %
Boil	Lublin (Lubelski)	50 g	25 min	4 %
Whirlpool	Lublin (Lubelski)	52.5 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
W34/70	Lager	Dry	40.25 g	---