

## P.38 - Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **4.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **11 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.6 kg (73.5%)	81 %	5
Adjunct	Chleb pszenno żytni	0.7 kg (14.3%)	81 %	5
Grain	Weyermann - Carapils	0.3 kg (6.1%)	78 %	4
Grain	Weyermann - Monachijski typ I	0.3 kg (6.1%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	10 g	60 min	6.4 %
Boil	Sybilla	20 g	20 min	6.4 %
Whirlpool	Sybilla	70 g	10 min	6.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis

### Notes

- 50 % wody demineralizowanej do zacierania i do wystadzania.

Zacieranie:

- 1,5 ml kwasu mlekowego;
- 1,2 g Chlorek wapnia;
- 0.3 g Gips piwowarski;
- 1,8 g Sól epsom;

Woda do wystadzania:

- 2,0 ml kwasu mlekowego;
- 1,6 g Chlorek wapnia;
- 0.4 g Gips piwowarski;
- 2,4 g Sól epsom;

*Oct 27, 2022, 5:56 PM*