

PePe Wróc

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **43**
- SRM **3.7**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **54.6C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **70C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.6 kg (80%)	81 %	4
Grain	Briess - Carapils Malt	0.3 kg (6.7%)	74 %	3
Grain	Strzegom Monachijski typ I	0.6 kg (13.3%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	12.5 %
Whirlpool	Saaz (Czech Republic)	50 g	10 min	3.3 %
Whirlpool	tettnanger	50 g	10 min	3.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Slant	200 ml	Fermentis