

## pils

- Gravity **15.2 BLG**
- ABV ---
- IBU **24**
- SRM **5**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Bel	4 kg (85.1%)	79 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (10.6%)	79 %	16
Grain	Cara-Pils/Dextrine	0.2 kg (4.3%)	72 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	13 g	60 min	10 %
Boil	Lublin (Lubelski)	20 g	15 min	4 %
Boil	Lublin (Lubelski)	6 g	10 min	4 %
Boil	Lublin (Lubelski)	6 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
W 34/70	Lager	Dry	11.5 g	---