

## Pils

- Gravity **11.4 BLG**
- ABV ---
- IBU **40**
- SRM **8.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.2 liter(s)**

### Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **69.3C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (65.2%)	80 %	4
Grain	Strzegom Monachijski typ II	1 kg (21.7%)	79 %	22
Grain	Pszeniczny	0.2 kg (4.3%)	85 %	4
Grain	Abbey Castle	0.2 kg (4.3%)	--- %	89
Grain	zakwaszający	0.2 kg (4.3%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	20 g	60 min	13.4 %
Aroma (end of boil)	Citra	30 g	5 min	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11 g	Fermentis Division of S.I.Lesaffre