

# Pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **37**
- SRM **3.8**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **71 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **71C**
- Keep mash **10 min** at **76C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.5 kg (88.2%)	81 %	4
Grain	Weyermann - Carapils	0.5 kg (9.8%)	78 %	4
Grain	Słód jęczmienny zakwaszający	0.1 kg (2%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	60 g	70 min	4.5 %
Boil	Saaz (Czech Republic)	20 g	20 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	40 g	0 min	4.5 %

## Yeasts

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