

## Pils

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **50**
- SRM **3.7**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **2 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **24.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód PILZNEŃSKI Strzegom	5 kg (100%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	35 g	60 min	6.3 %
Boil	Chinook	15 g	30 min	13 %
Boil	Cascade USA	20 g	10 min	7.1 %
Aroma (end of boil)	Szyszka	40 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	250 ml	---