

## German Pils

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- Gravity **12.1 BLG**
- ABV ---
- IBU **44**
- SRM **4.3**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

### Steps

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

### Mash step by step

- Heat up **7.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	2.4 kg (96%)	81 %	4
Grain	Zakwaszający	0.1 kg (4%)	80 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mittelfruh	30 g	10 min	3 %
Boil	Marynka	15 g	60 min	10 %

### Yeasts

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