

## German Pils

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **37**
- SRM **3.8**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	5 kg (90.9%)	80 %	4
Grain	Weyermann - Carapils	0.5 kg (9.1%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	50 g	60 min	2.7 %
Boil	Marynka	25 g	30 min	7.9 %
Aroma (end of boil)	Marynka	25 g	10 min	7.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	1000 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Herb	trawa cytrynowa	10 g	Secondary	10 day(s)

Fining	mech irlandzki	10 g	Boil	10 min
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