

## 5D. German Pils

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **3.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **17.9 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.4 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.4 liter(s)**

### Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **67.9C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **17.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.4 kg (100%)	81 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Aroma (end of boil)	Hallertau Tradition	20 g	5 min	6 %
Dry Hop	Hallertau Tradition	20 g	2 day(s)	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70 / Wyeasy 2124	Lager	Dry	10 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	CaSO4	2 g	Boil	60 min

### Notes

- 14 dni 10-12C  
2 dni 16C  
4 dni 2C

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