

## german pilsner

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **3.6**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **52 C**, Time **5 min**
- Temp **64 C**, Time **25 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **25 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **1 min** at **78C**
- Sparge using **21.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	6 kg (100%)	80.5 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	50 g	60 min	5 %
Boil	Tettnang	25 g	30 min	4 %
Aroma (end of boil)	Hallertau Mittelfruh	25 g	10 min	3 %
Aroma (end of boil)	Tettnang	25 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	22 g	Mangrove Jack's

### Extras

Type	Name	Amount	Use for	Time
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Fining	whirlfloc T	2.5 g	Boil	10 min
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