

## Pils

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- Gravity **20 BLG**
- ABV ---
- IBU **33**
- SRM **7.9**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.1 liter(s)**
- Total mash volume **28.1 liter(s)**

### Steps

- Temp **63 C**, Time **70 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **21.1 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **70 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Ger	6.75 kg (96.2%)	81 %	4
Grain	Amber Malt	0.1 kg (1.4%)	75 %	43
Grain	Caramel/Crystal Malt - 40L	0.17 kg (2.4%)	74 %	79

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	25 g	60 min	9 %
Boil	Saaz (USA)	35 g	30 min	3.75 %
Boil	Saaz (USA)	30 g	5 min	3.75 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11.5 g	Fermentis Division of S.I.Lesaffre