

## Pils

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **29**
- SRM **3.9**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **28.5 liter(s)**

### Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.5 kg (83.3%)	82 %	4
Grain	Monachijski	0.5 kg (9.3%)	80 %	16
Grain	Briess - 2 Row Carapils Malt	0.4 kg (7.4%)	75 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	7.5 %
Boil	Hallertau Tradition	30 g	60 min	5 %
Boil	Hallertau Tradition	30 g	5 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	500 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
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Fining	Wirflook	10 g	Boil	15 min
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