

## Pils

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **19**
- SRM **3.8**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **46.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **31.5 liter(s)**
- Total mash volume **38.5 liter(s)**

### Steps

- Temp **55 C**, Time **15 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **31.5 liter(s)** of strike water to **58.9C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **46.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	6 kg (85.7%)	82 %	4
Grain	Viking Munich Malt	1 kg (14.3%)	78 %	18

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	8 %
Boil	Lublin (Lubelski)	20 g	30 min	5 %
Boil	Sybilla	15 g	10 min	3.5 %
Aroma (end of boil)	Sybilla	20 g	0 min	3.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
safale W34	Lager	Dry	22 g	---