

## Pils

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **24**
- SRM **4.4**
- Style **Classic American Pilsner**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **10 %**
- Size with trub loss **17.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **17.4 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **13.1 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **21.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.7 kg (84.9%)	81 %	4
Grain	Monachijski	0.5 kg (11.5%)	80 %	16
Grain	Weyermann - Carapils	0.16 kg (3.7%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	11 g	60 min	13.5 %
Boil	Styrian Golding	16 g	15 min	3.6 %
Boil	Styrian Golding	5 g	10 min	3.6 %
Boil	Styrian Golding	5 g	5 min	3.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
W34/70	Lager	Dry	11.5 g	---