

## Pils

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **24**
- SRM **3.1**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.3 liter(s)**
- Total mash volume **8.4 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **6.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.9 kg (90.5%)	81 %	2.5
Grain	Strzegom Monachijski typ I	0.2 kg (9.5%)	79 %	15

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	20 g	60 min	4.5 %
Aroma (end of boil)	Hallertau Spalt Select	8 g	20 min	3.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Belgian Fruit Spicy Ale Yeast	Lager	Dry	10 g	---