

## Pils

---

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **48**
- SRM **3.3**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **50 C**, Time **30 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **30 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **70C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (95.2%)	81 %	4
Grain	Briess - Carapils Malt	0.2 kg (4.8%)	74 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	60 min	6.5 %
Boil	Lublin (Lubelski)	15 g	15 min	6.5 %
Aroma (end of boil)	Lublin (Lubelski)	25 g	5 min	6.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
ge	Lager	Slant	11 ml	---