

## Pils

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **47**
- SRM **3.7**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **52 C**, Time **15 min**
- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **25 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	3.5 kg (87.5%)	80.5 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (12.5%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	10 min	4 %
Boil	Marynka	40 g	60 min	8.8 %