

## LAB. #003 Pils

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **34**
- SRM **4.7**
- 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 **6.6 liter(s)**
- Total mash volume **8.8 liter(s)**

### Steps

- Temp **66 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **6.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.8 kg (81.8%)	80 %	4
Grain	Caramunich® typ I	0.1 kg (4.5%)	73 %	80
Grain	Pszenica prażona	0.3 kg (13.6%)	70 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	8 g	60 min	10 %
Boil	Simcoe	10 g	15 min	13.2 %
Boil	Simcoe	10 g	1 min	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale

### Extras

Type	Name	Amount	Use for	Time
Spice	Trawa cytrynowa	12 g	Boil	10 min
Fining	Mech irlandzki	5 g	Boil	15 min