pils

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **41**
- SRM **5.9**
- Style **Bohemian Pilsener**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28 liter(s)**
- Boil time **70 min**
- Evaporation rate **7 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **20 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	5 kg *(79.4%)*	81 %	5
Grain	Briess - Munich Malt 10L	1 kg *(15.9%)*	77 %	20
Grain	Słód Caramunich Typ II Weyermann	0.2 kg *(3.2%)*	73 %	90
Grain	zakwaszajacy	0.1 kg *(1.6%)*	55 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	70 min	13.5 %
Boil	Hallertau	30 g	40 min	4.5 %
Boil	Hallertau	30 g	30 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	10 min	4.5 %
Boil	Saaz (Czech Republic)	30 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
fermentis saflager	Lager	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	7 g	Boil	15 min