

OIRajt

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **37**
- SRM **6.3**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- 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 **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **21.7 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (80.6%)	81 %	4
Grain	Rye, Flaked	0.4 kg (6.5%)	78.3 %	4
Grain	Rye Malt	0.5 kg (8.1%)	63 %	10
Grain	Caramunich® typ I	0.3 kg (4.8%)	73 %	80

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	40 g	30 min	12 %
Boil	Lublin (Lubelski)	60 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11 g	---