

Pierwszak

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **43**
- SRM ---

Batch size

- Expected quantity of finished beer **7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **7.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **8.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **4.4 liter(s)**
- Total mash volume **5.8 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **4.4 liter(s)** of strike water to **68.9C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **8.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann Extra Pale Pilsner	1.35 kg (93.1%)	--- %	---
Grain	Cara Gold Crisp	0.1 kg (6.9%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Challenger	13 g	60 min	7.7 %
First Wort	Saaz (Czech Republic)	11 g	10 min	3.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	3.78 g	---