

- Gravity **13 BLG**
- ABV ---
- IBU **40**
- SRM ---
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

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

### Steps

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

### Mash step by step

- Heat up **liter(s)** of strike water to **C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **liter(s)** of **C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Sugar	cukier	5 kg (100%)	--- %	---

### Hops

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

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale