

## Ważka referent v0.1

- Gravity **10 BLG**
- ABV **4 %**
- IBU **17**
- SRM **3**

### Batch size

- Expected quantity of finished beer **33 liter(s)**
- Trub loss **2 %**
- Size with trub loss **34.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **3 %/h**
- Boil size **36.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **28.1 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **22.5 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **36.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.62 kg (100%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Progress	10 g	60 min	6.9 %
Boil	Celeia	10 g	60 min	5.3 %
Boil	Mosaic	2.5 g	15 min	11.8 %
Boil	Simcoe	2.5 g	15 min	13.3 %
Boil	Centennial	2.5 g	15 min	9.7 %
Boil	Cascade	2.5 g	15 min	7.1 %
Boil	Mosaic	2.5 g	5 min	11.8 %
Boil	Simcoe	2.5 g	60 min	13.3 %
Boil	Centennial	2.5 g	5 min	10.5 %
Boil	Cascade	2.5 g	5 min	7.1 %
Dry Hop	Mosaic	5 g	7 day(s)	11.8 %
Dry Hop	Simcoe	5 g	7 day(s)	13.3 %

Dry Hop	Centennial	5 g	7 day(s)	10.5 %
Dry Hop	Cascade	5 g	7 day(s)	7.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	375 ml	---