

# warka eksperymentalna

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **23**
- SRM **5.1**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **28.2 liter(s)**
- Total mash volume **37.6 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **28.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	7 kg (74.5%)	82 %	4
Grain	Viking Munich Malt	1 kg (10.6%)	78 %	18
Grain	Płatki owsiane	0.4 kg (4.3%)	85 %	3
Grain	Słód pszeniczny Bestmalz	1 kg (10.6%)	82 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Aroma (end of boil)	Amarillo	10 g	10 min	9.5 %
Aroma (end of boil)	Cascade PL	15 g	10 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Slant	5 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	curacao	10 g	Boil	10 min