

# Słoneczko

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **4.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **170 liter(s)**
- Trub loss **5 %**
- Size with trub loss **178.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **215.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **152.3 liter(s)**
- Total mash volume **195.8 liter(s)**

## Steps

- Temp **52 C**, Time **50 min**
- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **152.3 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **50 min** at **52C**
- Keep mash **90 min** at **68C**
- Keep mash **15 min** at **78C**
- Sparge using **106.3 liter(s)** of **76C** water or to achieve **215.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	15 kg (34.5%)	80 %	4
Grain	Pszenica niesłodowana	14 kg (32.2%)	75 %	3
Grain	Oats, Flaked	5.5 kg (12.6%)	80 %	2
Grain	Pszeniczny	3.5 kg (8%)	85 %	4
Grain	Acid Malt	2 kg (4.6%)	58.7 %	6
Grain	Simpsons - Golden Naked Oats	3.5 kg (8%)	73 %	20

Owies zmielony w młynku dla większej ilości łuski

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Herkules	100 g	60 min	17 %
Boil	Saaz (Czech Republic)	100 g	15 min	4.5 %
Boil	Puławski	35 g	5 min	4.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	70 g	Boil	5 min
Flavor	Curacao	70 g	Boil	5 min
Spice	Kolendra	35 g	Boil	0 min
Flavor	Curacao	35 g	Boil	0 min
Herb	Miodokrzew	70 g	Boil	0 min
Herb	Mirt cytrynowy	70 g	Boil	0 min
Flavor	Trawa cytrynowa	10 g	Boil	0 min
Flavor	Cytryna	800 g	Boil	0 min
Flavor	Pomarańcza	1000 g	Boil	0 min
Spice	Trawa cytrynowa	10 g	Boil	5 min
Spice	Kwiat pomarańczy	10 g	Boil	0 min