

# Słoneczne

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **14**
- SRM **3.5**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **180 liter(s)**
- Trub loss **5 %**
- Size with trub loss **189 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **207.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **121.6 liter(s)**
- Total mash volume **162.2 liter(s)**

## Steps

- Temp **67 C**, Time **100 min**

## Mash step by step

- Heat up **121.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **100 min** at **67C**
- Sparge using **126.9 liter(s)** of **76C** water or to achieve **207.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszenica niesłodowana	15 kg (37%)	75 %	3
Grain	Strzegom Pilzneński	12 kg (29.6%)	80 %	4
Grain	Strzegom Pszeniczny	7 kg (17.3%)	81 %	6
Grain	Oats, Flaked	1.25 kg (3.1%)	80 %	2
Grain	Acid Malt	0.7 kg (1.7%)	58.7 %	6
Grain	Słód diastatyczny	1.5 kg (3.7%)	100 %	6
Grain	Wheat, Torrified	1.5 kg (3.7%)	79 %	4
Grain	Rye, Flaked	0.8 kg (2%)	78.3 %	4
Grain	Płatki orkiszowe	0.8 kg (2%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	hallertauer taurus	70 g	50 min	14 %
Boil	East Kent Goldings	50 g	15 min	5.1 %
Boil	Styrian Golding	50 g	5 min	3.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M21 Belgian Wit	Wheat	Culture	100 g	Żuk
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### Extras

Type	Name	Amount	Use for	Time
Flavor	curacao	45 g	Boil	10 min
Spice	kolendra	35 g	Boil	10 min
Flavor	curacao	35 g	Boil	3 min
Spice	kolendra	25 g	Boil	3 min
Spice	Kminek	2 g	Boil	3 min

### Notes

- Na 3 minuty przed końcem sok i skórka z połowy 10 cytryn i 8 pomarańczy. Na whirlpool przy 80 stopniach sok i skórka z drugiej połowy owoców.  
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