

## Witbier warsztaty

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **6**
- SRM **3.7**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **13.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	2.9 kg (63%)	81 %	5
Grain	Płatki pszeniczne	0.5 kg (10.9%)	60 %	3
Grain	Płatki owsiane	0.5 kg (10.9%)	60 %	3
Grain	Weyermann - Pale Wheat Malt	0.7 kg (15.2%)	85 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	10 g	60 min	4 %
Boil	Lublin (Lubelski)	10 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's Belgian Wit M21	Wheat	Dry	11.5 g	Mangrove Jack's

### Extras

Type	Name	Amount	Use for	Time
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Spice	Kolendra	10 g	Boil	15 min
Spice	Kolendra	10 g	Boil	5 min
Spice	Skórki pomarańczy	10 g	Boil	15 min
Spice	skórki pomarańczy	10 g	Boil	15 min