

## Witbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **4.1**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **15.5 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **64 C**, Time **55 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **55 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **4.7 liter(s)** of **76C** water or to achieve **15.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński (Wayermann & Castle 50/50)	1.7 kg (47.2%)	81 %	4
Grain	Wheat, Torrified	1.7 kg (47.2%)	79 %	4
Grain	Oats, Flaked	0.2 kg (5.6%)	80 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski PH 2019	20 g	20 min	7.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Liquid	1000 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	chlorek wapnia	4 g	Mash	60 min
Flavor	curacao	13 g	Boil	10 min

Flavor	kolendra	13 g	Boil	10 min
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