

## P.15 Witbier

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **12**
- SRM **3.5**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **11 %/h**
- Boil size **26.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **70 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **70 min** at **64C**
- Keep mash **1 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.5 kg (50%)	82 %	4
Grain	Wheat, Flaked	2 kg (40%)	77 %	4
Grain	Oats, Flaked	0.5 kg (10%)	80 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	15 g	60 min	5.1 %
Boil	Saaz (Czech Republic)	15 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Brewferm Blanche	Wheat	Dry	12 g	Brewferm

### Extras

Type	Name	Amount	Use for	Time
Herb	Kolendra	10 g	Boil	3 min

Spice	Suszona skórka gorzkiej pomarańczy curacao	20 g	Boil	3 min
Spice	Świeża skórka cytryny	20 g	Boil	3 min
Spice	Świeża skórka pomarańczy	20 g	Boil	3 min
Water Agent	Kwas mlekowy	5 g	Mash	---
Water Agent	Chlorek wapnia	4 g	Mash	---

## Notes

- Woda przed modyfikacją: Ph -7,9, chlorki 33 ppm, siarczany 50 ppm.  
Kwas mlekowy dodany do zacierania i do wody do wystadzania.  
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