

# WITBIER 1.0

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **3.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **13.5 %/h**
- Boil size **33.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **47 C**, Time **20 min**
- Temp **52 C**, Time **20 min**
- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **51.2C**
- Add grains
- Keep mash **20 min** at **47C**
- Keep mash **20 min** at **52C**
- Keep mash **50 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **33.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszenica niesłodowana	3 kg (50.8%)	70 %	2
Temperatura kleikowania pszenicy - 58-64 °C.				
Grain	Pilzneński 3,2-4,5 EBC Viking Malt	2 kg (33.9%)	80 %	4
Grain	Enzymatyczny	0.5 kg (8.5%)	90 %	5
Grain	Płatki owsiane błyskawiczne	0.4 kg (6.8%)	70 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pacific Jade	15 g	50 min	13.4 %
Aroma (end of boil)	Pacific Jade	15 g	5 min	13.4 %
Whirlpool	Perle	20 g	0 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Slant	200 ml	Fermentum

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Kwas mlekowy	5 g	Mash	20 min
Spice	Ananas	750 g	Boil	10 min
Spice	Kolendra	15 g	Boil	5 min
Spice	Curacao suszona skórka pomarańczy gorzkiej	15 g	Boil	5 min
Flavor	Skórki pomarańczy i cytryny moczone	40 g	Boil	5 min
Flavor	Skórka pomarańczy - suszona Kotanyi	20 g	Boil	5 min
Flavor	Moczona limonka	50 g	Boil	5 min
Herb	Rumianek	1 g	Boil	1 min
Other	Chłodnica	1 g	Boil	15 min
Flavor	Skórki pomarańczy	35 g	Secondary	10 day(s)
Spice	Ananas	656 g	Secondary	10 day(s)
Water Agent	Kwas l-askorbinowy	5 g	Bottling	---
Flavor	Limonka moczona	45 g	Secondary	10 day(s)
Water Agent	Kwas mlekowy	5 g	Bottling	---

Sprawdzić pH przed dodaniem.

### Notes

- <http://blog.homebrewing.pl/hefe-weizen-wskazowki-do-zacierania-chmielenia-fermentacji/>

<https://www.piwo.org/blogs/entry/44-300-witbier/>  
[https://www.wiki.piwo.org/Witbier\\_dla\\_zaawansowanych](https://www.wiki.piwo.org/Witbier_dla_zaawansowanych)

Zacieranie:  
<http://piwowarzy.wroclaw.pl/beer-busters/>  
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