

# Witbier 1

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **20**
- SRM **3.6**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **21.7 liter(s)**

## Steps

- Temp **40 C**, Time **20 min**
- Temp **50 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **16.3 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **20 min** at **40C**
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **70C**
- Keep mash **2 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.2 kg (40.5%)	81 %	4
Grain	Pszeniczny Viking	2.2 kg (40.5%)	85 %	4
Grain	Płatki żytnie	0.35 kg (6.4%)	85 %	3
Grain	Płatki pszeniczne	0.38 kg (7%)	85 %	3
Grain	Słód owsiany Fawcett	0.3 kg (5.5%)	61 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Whirlpool	Marynka	20 g	0 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	20 g	Boil	10 min
Spice	Skórka słodkiej pomarańczy	20 g	Boil	10 min

## Notes

- 40C rozbić betaglukanów w płatkach oraz uzyskanie większej ilości kwasu ferulowego (wzmocni goździkowy charakter)  
50C przerwa białkowa

4g gipsu CaSo4

3gr NaCl

*Dec 28, 2020, 3:32 PM*