

# Witbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **12**
- SRM **3.6**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (50%)	81 %	4
Grain	Pszeniczny	0.5 kg (12.5%)	85 %	4
Grain	Carahell	0.1 kg (2.5%)	77 %	26
Grain	Płatki pszeniczne	0.8 kg (20%)	85 %	3
Grain	płatki jęczmienne	0.2 kg (5%)	85 %	3
Grain	Płatki owsiane	0.4 kg (10%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	12 g	60 min	7.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew

## Extras

Type	Name	Amount	Use for	Time
Flavor	trawa cytrynowa	5 g	Boil	10 min
Flavor	skórka słodkiej pomarańczy	20 g	Boil	10 min
Flavor	skórka gorzkiej pomarańczy	20 g	Boil	10 min
Flavor	trawa cytrynowa	10 g	Boil	3 min
Flavor	kolendra	5 g	Boil	0 min
Flavor	skórka słodkiej pomarańczy	10 g	Boil	0 min
Flavor	skórka gorzkiej pomarańczy	10 g	Boil	0 min
Flavor	trawa cytrynowa	10 g	Boil	0 min