

# Witbier

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **25**
- SRM **3.6**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.2 liter(s) / kg**
- Mash size **20.2 liter(s)**
- Total mash volume **25 liter(s)**

## Steps

- Temp **50 C**, Time **1 min**
- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.2 liter(s)** of strike water to **53.6C**
- Add grains
- Keep mash **1 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	2.5 kg (52.1%)	80 %	4
Grain	Weyermann pszeniczny jasny	1.3 kg (27.1%)	80 %	6
Grain	Płatki pszeniczne	0.5 kg (10.4%)	60 %	3
Grain	Płatki owsiane	0.5 kg (10.4%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	30 g	60 min	5 %
Boil	Willamette	10 g	15 min	5 %
Boil	Sterling	15 g	15 min	4.5 %
Aroma (end of boil)	Sterling	15 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-33	Ale	Dry	11.5 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Spice	Curacao - skorka gorzkiej pomarańczy	20 g	Boil	15 min
Spice	skórki słodkiej pomarańczy	20 g	Boil	15 min
Spice	kolendra	20 g	Boil	15 min