

# American Witbier

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **21**
- SRM **3.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **3 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.75 kg (52.4%)	81 %	4
Grain	Wheat, Flaked	2 kg (38.1%)	77 %	4
Grain	Oats, Flaked	0.5 kg (9.5%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	12 %
Boil	Citra	35 g	5 min	14.8 %
Dry Hop	Citra	15 g	7 day(s)	14.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's - Belgian Wit M21	Wheat	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
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Spice	kolendra	20 g	Boil	5 min
Spice	curacao	20 g	Boil	5 min
Spice	skórka słodkiej pomarańczy	20 g	Boil	5 min
Spice	Skótko bergamotki	20 g	Boil	5 min