

# American Witbier #15

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- Gravity **11.9 BLG**
- ABV ---
- IBU **27**
- SRM **3.9**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25 liter(s)**

## Mash information

- Mash efficiency **83.9 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.3 liter(s)**

## Steps

- Temp **51 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **55.8C**
- Add grains
- Keep mash **20 min** at **51C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	2 kg (49.1%)	81 %	3.5
Grain	Biscuit Malt	0.07 kg (1.7%)	79 %	45
Grain	płatki pszenne	1.6 kg (39.3%)	77 %	3.9
Grain	płatki owsiane	0.3 kg (7.4%)	80 %	2
Grain	Weyermann - Acidulated Malt	0.1 kg (2.5%)	80 %	4.8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	11 g	60 min	5.9 %
Boil	Centennial	9 g	60 min	9.4 %
Boil	Cascade	19 g	10 min	5.9 %
Boil	Simcoe	10 g	10 min	11.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Classic Belgian Witbier	Ale	Dry	10 g	---

### Extras

Type	Name	Amount	Use for	Time
Spice	kolendra indyjska	26 g	Boil	3 min
Spice	skórka ze świeżej cytryny	3 g	Boil	3 min
Spice	curaçao	20 g	Boil	3 min
Spice	skórka ze świeżej pomarańczy	43 g	Boil	3 min