

# Guzman

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **19**
- SRM **2.5**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

## Steps

- Temp **50 C**, Time **1 min**
- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **54.3C**
- 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 **77C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann® Pilsner Malt	2.5 kg (58.1%)	80.5 %	3
Grain	Weyermann® Słód pszeniczny	1.3 kg (30.2%)	82 %	4
Grain	Płatki pszeniczne błyskawiczne	0.5 kg (11.6%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	30 g	60 min	4.5 %
Boil	Willamette	10 g	15 min	4.5 %
Boil	Saaz	15 g	15 min	2.5 %
Boil	Saaz	15 g	5 min	2.5 %
Whirlpool	Willamette	20 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
Water Agent	Gips	0.5 g	Mash	---
Water Agent	Epsom	3 g	Mash	---
Water Agent	Sól	3.5 g	Mash	---
Other	Pożywka Yeast G.F.	1 g	Boil	5 min
Fining	Whirlflock	4 g	Boil	5 min
Flavor	Skórka z pomarańczy Curacao	20 g	Boil	15 min
Flavor	Skórka z pomarańczy słodkiej	20 g	Boil	15 min
Flavor	Kolendra	20 g	Boil	15 min

### Notes

- Ca-75.8/Mg-19.8/Na-74.8/Cl-116.2/SO4-95.4/HCO3-nie wiem/

Fermentacja:

18°C - 1 dzień

18□ 22°C - 4 dni

22°C - 2 dni

*Jul 19, 2024, 10:56 AM*