

# Witbier mocna pomarańcza

- Gravity **10 BLG**
- ABV **4 %**
- IBU **11**
- SRM **3.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **55.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	3 kg (75%)	80 %	4
Grain	Pszenica niesłodowana	1 kg (25%)	75 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	15 min	3.8 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	15 g	Boil	10 min
Spice	Curacao	20 g	Boil	10 min

Other	łuska ryżowa	100 g	Mash	---
Spice	Skórka słodkiej pomarańczy	160 g	Boil	10 min