

# Witbier Pomarańczowy

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **12**
- SRM **3.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **62 %**
- Liquor-to-grist ratio **4.88 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **24.1 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **70 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **66.3C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **70 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6.9 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.7 kg (36.1%)	80 %	4
Grain	Pszenica niesłodowana	1.7 kg (36.1%)	75 %	3
Grain	Płatki owsiane	0.4 kg (8.5%)	85 %	3
Grain	Słód diastatyczny	0.3 kg (6.4%)	80 %	2.5
Sugar	Zblendowane całe pomarańcze	0.425 kg (9%)	--- %	---
Sugar	Cukier biały	0.182 kg (3.9%)	100 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	25 g	60 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Zblendowane całe pomarańcze	425 g	Boil	10 min
Spice	Kolendra	15 g	Boil	10 min
Spice	Curacao	20 g	Boil	10 min
Spice	Skórka świeżej pomarańczy	50.8 g	Boil	5 min