

# Witbier prosty + czarna porzeczka

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **17**
- SRM **3.1**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

## Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **6 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	1.5 kg (75%)	82 %	4
Grain	Płatki pszeniczne	0.5 kg (25%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Crystal	7.5 g	60 min	4.9 %
Aroma (end of boil)	Simcoe	7.5 g	10 min	13.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	5.75 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	sucha skórka cytryny	15 g	Boil	10 min
Flavor	sucha skórka gorzkiej pomarańczy	15 g	Boil	10 min

Flavor	sucha skórka słodkiej pomarańczy	15 g	Boil	10 min
Spice	kolendra	10 g	Boil	10 min
Spice	jałowiec	5 g	Boil	10 min
Flavor	Czerwona porzeczka	1000 g	Secondary	14 day(s)