

# Ciemny Witold

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **21**
- SRM **6.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **73C**
- Keep mash **10 min** at **77C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	2.5 kg (55.6%)	81 %	5
Grain	Weyermann - Pale Wheat Malt	1.3 kg (28.9%)	85 %	5
Grain	Wheat, Flaked	0.5 kg (11.1%)	77 %	4
Grain	Caramunich type 3	0.2 kg (4.4%)	--- %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	30 g	60 min	3.6 %
Boil	Styrian Golding	10 g	15 min	3.6 %
Boil	Saaz (Czech Republic)	15 g	15 min	4.5 %
Boil	Saaz (Czech Republic)	15 g	5 min	4.5 %
Boil	Styrian Golding	20 g	5 min	3.6 %

## Yeasts

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

Type	Name	Amount	Use for	Time
Flavor	Sweet Orange Peel	20 g	Boil	15 min
Flavor	Bitter Orange Peel	20 g	Boil	15 min
Spice	Coriander Seeds	20 g	Boil	15 min

### Notes

- Wymieszać ześrutowany słód w wodzie o temperaturze 50°C.  
Skleikować płatki w 2.5 litrze wody w temp. 58- 64°C. Na 20 minut.  
*Oct 21, 2016, 10:10 PM*