

## #161 Witbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **14**
- SRM **3.7**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **16.8 liter(s)**

### Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **22.2 liter(s)**

### Steps

- Temp **70 C**, Time **20 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **70C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **1.4 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.7 kg (49.7%)	80 %	4
Grain	Pszenica niesłodowana	1.45 kg (42.4%)	75 %	3
Grain	Płatki owsiane	0.17 kg (5%)	60 %	3
Grain	Wheat, Torrified	0.1 kg (2.9%)	79 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	8 g	60 min	9.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM23 Magiczny ogród	Wheat	Liquid	250 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
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Spice	Suszona skórka słodkiej pomarańczy	10 g	Boil	5 min
Spice	Suszona skórka Curacao	10 g	Boil	5 min
Spice	Kolendra indyjska	4 g	Boil	5 min