

# Witbier 12BLG FM20

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **3.6**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **22.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **70 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **28.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (55.6%)	81 %	5
Grain	Pszenica niesłodowana	2 kg (37%)	75 %	3
Grain	Płatki owsiane	0.4 kg (7.4%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	30 min	11 %
Aroma (end of boil)	Citra	25 g	5 min	12 %
Whirlpool	Citra	25 g	10 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Liquid	200 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Spice	kolendra mielona	7 g	Boil	5 min
Spice	curasao	20 g	Boil	5 min
Spice	skórka z pomarańczy	12 g	Boil	5 min

## Notes

- może wreszcie wyjdzie coś dobrego :P fermentacja w około 20 stopni  
*May 14, 2019, 1:27 PM*