

# WITBIER v4 #108

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **4.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **90 min**
- Evaporation rate **24 %/h**
- Boil size **20.3 liter(s)**

## Mash information

- Mash efficiency **72.2 %**
- Liquor-to-grist ratio **4.55 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.3 liter(s)**

## Steps

- Temp **64 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **68.8C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **20.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński - viking	1.3 kg (39.4%)	80 %	4
Grain	Mep©Ale	0.3 kg (9.1%)	82.2 %	4.8
Grain	pszenica	1 kg (30.3%)	75 %	3
Grain	Cookie - viking	0.1 kg (3%)	72 %	50
Grain	płatki pszenne	0.6 kg (18.2%)	82 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	13 g	60 min	4.6 %
Aroma (end of boil)	Styrian Golding	40 g	5 min	4.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM20 Białe Walonki	Wheat	Slant	130 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Water Agent	gips	2 g	Mash	---
Water Agent	sól epsom	0.5 g	Mash	---
Water Agent	kwask mlekowy [ml]	5.3 g	Mash	---
Flavor	curacao (suszone)	10.8 g	Boil	3 min
Flavor	kolendra mielona	30 g	Boil	3 min
Fining	mech irlandzki	0 g	Boil	5 min
Water Agent	kwask askorbinowy	3 g	Bottling	---
Flavor	skórka pomarańczy (świeża)	125 g	Boil	3 min
5 pomarańczy				