

## Biała Podlaska #4 - Witbier - Browar na Wyżynie

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **14**
- SRM **3**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.2 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 **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński Soufflet	2.5 kg (55.6%)	80 %	4
Grain	płatki orkiszowe pełnoziarniste błyskawiczne	1.6 kg (35.6%)	70 %	1
Grain	płatki owsiane pełnoziarniste błyskawiczne	0.4 kg (8.9%)	70 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga (Polishhops) - granulát	10 g	100 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM27 Artefakty trapistów	Ale	Liquid	1000 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Water Agent	kwas fosforowy zacier	5 g	Mash	75 min
Water Agent	gips	4 g	Mash	75 min
Water Agent	chlorek wapnia	4 g	Mash	75 min
Flavor	Skórka pomarańczy (4 pomarańczy)	80 g	Boil	5 min
Flavor	Skórka grejpfruta (1 grejpfrut)	25 g	Boil	5 min
Flavor	Skórka cytryny (2 cytryny)	15 g	Boil	5 min
Spice	Kolendra indyjska	10 g	Boil	5 min
Spice	curacao	20 g	Boil	5 min
Herb	Rumianek saszetka x 3	4.5 g	Boil	2 min

## Notes

- <https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=XQMPWJ0>  
 Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
 56.2 0.0 131.0 72.6 89.0 0.055  
 Mash pH \*: 5.20  
 SO42-/Cl- ratio: 1.2 Balanced  
 May 20, 2020, 3:37 PM