

# 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  
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