

## Biała Podlaska #2 - Witbier - Browar na Wyżynie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **3.9**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **6 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **55 C**, Time **15 min**
- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **22.3 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | pilzneński Viking Malt      | 2.5 kg (45.5%) | 80 %  | 5   |
| Grain | pszeniczny Viking Malt      | 0.5 kg (9.1%)  | 81 %  | 5   |
| Grain | płatki pszenne błyskawiczne | 1.8 kg (32.7%) | 50 %  | 1   |
| Grain | płatki owsiane błyskawiczne | 0.5 kg (9.1%)  | 50 %  | 3   |
| Grain | mąka pszenna                | 0.2 kg (3.6%)  | 50 %  | --- |

### Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Junga (PL) - granulát | 8 g    | 60 min | 12.5 %     |
| Boil    | Saaz (CZ) - granulát  | 20 g   | 15 min | 3.78 %     |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safbrew T-58 | Ale  | Slant | 300 ml | ---        |

## Extras

| Type        | Name                  | Amount  | Use for | Time    |
|-------------|-----------------------|---------|---------|---------|
| Flavor      | Skórka pomarańczy     | 100 g   | Boil    | 5 min   |
| Spice       | Kolendra              | 10 g    | Boil    | 5 min   |
| Herb        | Rumianek saszetka x 2 | 3 g     | Boil    | 5 min   |
| Water Agent | kwas mlekowy          | 4 g     | Mash    | 110 min |
| Water Agent | chlorek sodu          | 3 g     | Mash    | 110 min |
| Water Agent | siarczan wapnia       | 1 g     | Mash    | 110 min |
| Water Agent | woda demineralizowana | 15000 g | Mash    | 110 min |
| Spice       | curacao               | 20 g    | Boil    | 5 min   |

## Notes

- Profil wody:  
Ca+2 Mg+2 Na+ Cl- SO4-2 Alkalinity Residual  
68.2 10.0 44.4 71.4 42.6 109.9 55.4

SO42-/Cl- ratio: 0.6 Very Malty  
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