

## #6 Biały murzyn

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **20**
- SRM **3.8**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **0 %**
- Size with trub loss **10 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **7 liter(s)**
- Total mash volume **9.4 liter(s)**

### Steps

- Temp **50 C**, Time **30 min**
- Temp **67 C**, Time **60 min**
- Temp **73 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **7 liter(s)** of strike water to **55.1C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **73C**
- Keep mash **1 min** at **76C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **12.1 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount          | Yield | EBC |
|-------|---------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński | 1 kg (41.7%)    | 80 %  | 4   |
| Grain | Strzegom Pszeniczny | 0.5 kg (20.8%)  | 81 %  | 6   |
| Grain | Płatki orkiszowe    | 0.19 kg (7.9%)  | 80 %  | 4   |
| Grain | Płatki owsiane      | 0.71 kg (29.6%) | 85 %  | 3   |

### Hops

| Use for   | Name    | Amount | Time   | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil      | Cascade | 10 g   | 60 min | 6 %        |
| Boil      | Cascade | 5 g    | 5 min  | 6 %        |
| Whirlpool | Cascade | 10 g   | 30 min | 6 %        |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11.5 g | ---        |

### Extras

| Type  | Name     | Amount | Use for | Time  |
|-------|----------|--------|---------|-------|
| Spice | Curacao  | 5 g    | Boil    | 5 min |
| Spice | Kolendra | 5 g    | Boil    | 5 min |
| Spice | Curacao  | 10 g   | Boil    | 0 min |

## Notes

- Zacieranie:  
50,5-49,5 stopnia - 30 min  
67 stopni - 60 min (z podrzewaniem, spadło do ok. 60 stopni, podgrzewanie do 73 stopni 15 minut przed końcem)  
73 stopnie - 15 minut

Kolendra zmielona w moździerzu.

Curacao i Cascade 10g na Whirlpool poniżej 60 stopni.

Mętna brzezka przed gotowaniem. Następnym razem trzeba więcej brzezki zawrócić, ponieważ po połowie filtracji leciała klarowna.

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