

Witbier mini

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **3.5**
- Style **Witbier**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **3 %**
- Size with trub loss **11.7 liter(s)**
- Boil time **70 min**
- Evaporation rate **13.5 %/h**
- Boil size **16.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.3 liter(s)**
- Total mash volume **8.4 liter(s)**

Steps

- Temp **32 C**, Time **45 min**
- Temp **52 C**, Time **20 min**
- Temp **68 C**, Time **70 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **6.3 liter(s)** of strike water to **34C**
- Add grains
- Keep mash **45 min** at **32C**
- Keep mash **20 min** at **52C**
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **77C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---------------------------------------|----------------|-------|-----|
| Grain | Pilzneński 3,2-4,5 EBC Viking Malt | 1.2 kg (37.5%) | 80 % | 4 |
| Adjunct | Pszenica niesłodowana | 1.1 kg (34.4%) | 70 % | 3 |
| Temperatura kleikowania pszenicy: 58-64 °C. Pszenicę wcześniej skleikować w temp. 85C i dodać do zacierania jako podgrzanie. | | | | |
| Grain | Płatki pszeniczne błyskawiczne | 0.4 kg (12.5%) | 80 % | 4 |
| Grain | Pszeniczny 3,5-6,5 EBC Viking Malt | 0.2 kg (6.3%) | 80 % | 5 |
| Grain | Płatki owsiane błyskawiczne | 0.3 kg (9.4%) | 80 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|--------|------------|
| Boil | Pacific Jade | 6 g | 50 min | 14.8 % |
| Boil | Pacific Jade | 4 g | 10 min | 14.8 % |
| Aroma (end of boil) | Perle | 10 g | 5 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------|-------|-------|--------|------------------|
| FM20 Białe Walonki | Wheat | Slant | 100 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|--|--------|-----------|-----------|
| Flavor | Ananas | 86 g | Boil | 7 min |
| Spice | kolendra | 8 g | Boil | 5 min |
| Spice | curacao | 5 g | Boil | 5 min |
| Spice | Skórka pomarańczy | 8 g | Boil | 5 min |
| Spice | Skórka pomarańczy - suszona Kotanyi | 10 g | Boil | 5 min |
| Spice | Limonka | 3 g | Boil | 5 min |
| Spice | Skórka cytryny | 6 g | Boil | 5 min |
| Herb | Rumianek | 1 g | Boil | 1 min |
| Spice | Skórka z pomarańczy w alkoholu | 15 g | Secondary | 10 day(s) |
| Flavor | Ananas | 1000 g | Secondary | 10 day(s) |

Notes

- <https://www.piwo.org/blogs/entry/44-300-witbier/>
https://www.wiki.piwo.org/Witbier_dla_zaawansowanych
Feb 1, 2019, 2:00 PM
- Łuska ryżowa w proporcjach 15g na każde 10% ziaren bez łuski, np: 30% - 45g, 40% - 60g, 50% - 75g
Feb 7, 2019, 9:43 PM