

## Witbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **13**
- SRM **3.7**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **64 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **70 C**, Time **30 min**
- Temp **55 C**, Time **25 min**
- Temp **64 C**, Time **70 min**
- Temp **77 C**, Time **1 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **25 min** at **55C**
- Keep mash **70 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **1 min** at **77C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2.5 kg (45.5%) | 80 %  | 4   |
| Grain | Płatki pszeniczne   | 2.5 kg (45.5%) | 85 %  | 3   |
| Grain | Płatki owsiane      | 0.5 kg (9.1%)  | 85 %  | 3   |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | start             | 1 g    | 70 min | 1 %        |
| Boil    | Fuggles           | 20 g   | 60 min | 4.5 %      |
| Boil    | Lublin (Lubelski) | 15 g   | 15 min | 4 %        |

### Yeasts

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

### Extras

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

|       |          |      |      |       |
|-------|----------|------|------|-------|
| Spice | curacao  | 20 g | Boil | 5 min |
| Spice | kolendra | 7 g  | Boil | 5 min |