

# Witbier

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **19**
- SRM **3.5**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **25.5 liter(s)**
- Trub loss **1 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **45 C**, Time **15 min**
- Temp **54 C**, Time **15 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.9 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **15 min** at **54C**
- Keep mash **60 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom pszeniczny         | 1 kg (19.6%)   | 81 %  | 6   |
| Grain | Strzegom Pilzneński         | 2 kg (39.2%)   | 80 %  | 4   |
| Grain | Weyermann - Acidulated Malt | 0.2 kg (3.9%)  | 80 %  | 6   |
| Grain | Wheat, Flaked               | 0.4 kg (7.8%)  | 77 %  | 4   |
| Grain | Oats, Flaked                | 0.8 kg (15.7%) | 80 %  | 2   |
| Grain | Barley, Flaked              | 0.4 kg (7.8%)  | 70 %  | 4   |
| Grain | sahti                       | 0.3 kg (5.9%)  | 77 %  | 10  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Sybilla | 10 g   | 50 min | 7 %        |
| Boil                | Sybilla | 10 g   | 30 min | 7 %        |
| Boil                | Sybilla | 10 g   | 15 min | 7 %        |
| Aroma (end of boil) | Sybilla | 10 g   | 10 min | 7 %        |

|                     |         |      |       |       |
|---------------------|---------|------|-------|-------|
| Aroma (end of boil) | Sybilla | 10 g | 5 min | 7 %   |
| Whirlpool           | Sybilla | 10 g | 0 min | 3.5 % |

### Yeasts

| Name               | Type  | Form   | Amount | Laboratory       |
|--------------------|-------|--------|--------|------------------|
| FM20 Białe Walonki | Wheat | Liquid | 200 ml | Fermentum Mobile |

### Extras

| Type   | Name                   | Amount | Use for | Time   |
|--------|------------------------|--------|---------|--------|
| Flavor | starte skórki cytrusów | 100 g  | Boil    | 10 min |
| Flavor | kolendra               | 5 g    | Boil    | 10 min |
| Flavor | Curacao                | 20 g   | Boil    | 10 min |