

## Witbier 13

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **13**
- SRM **3.5**
- 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 **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount       | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Pilzneński                  | 2.4 kg (48%) | 81 %  | 4   |
| Grain | Płatki pszeniczne           | 1 kg (20%)   | 60 %  | 3   |
| Grain | Płatki owsiane              | 1.5 kg (30%) | 60 %  | 3   |
| Grain | Weyermann - Acidulated Malt | 0.1 kg (2%)  | 80 %  | 6   |

### Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Saaz (Czech Republic) | 14 g   | 60 min | 4.3 %      |
| Boil    | East Kent Goldings    | 20 g   | 15 min | 6.3 %      |

### Yeasts

| Name  | Type | Form   | Amount | Laboratory       |
|---|------|--------|--------|------------------|
| FM53 Voss kveik   | Ale  | Liquid | 60 ml  | Fermentum Mobile |
| starter kręcony na mieszadle 48h w obj. 1L 10 BLG - ilość zadanych drożdży podana orientacyjnie |      |        |        |                  |

### Extras

| Type  | Name            | Amount | Use for | Time   |
|-------|-----------------|--------|---------|--------|
| Spice | Ziarna kolendry | 7 g    | Boil    | 10 min |

|  |                                  |      |      |        |
|--|----------------------------------|------|------|--------|
| Flavor   | Skórka gorzkiej pomarańczy       | 20 g | Boil | 10 min |
| Flavor   | Starta skórka świeżej pomarańczy | 30 g | Boil | 5 min  |
| Starta skórka świeżej pomarańczy - 6 sztuk, gramy podane orientacyjnie |                                  |      |      |        |