

## witbier

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **12**
- SRM **3**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

| Type  | Name              | Amount         | Yield  | EBC |
|-------|-------------------|----------------|--------|-----|
| Grain | Pilzneński optima | 2.5 kg (55.6%) | 82.6 % | 4   |
| Grain | Płatki pszeniczne | 2 kg (44.4%)   | 80 %   | 3   |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 20 g   | 60 min | 5 %        |
| Boil    | Lublin (Lubelski) | 10 g   | 7 min  | 5 %        |

### Yeasts

| Name             | Type  | Form | Amount | Laboratory |
|------------------|-------|------|--------|------------|
| Brewferm Blanche | Wheat | Dry  | 11 g   | ---        |

### Extras

| Type  | Name                       | Amount | Use for | Time  |
|-------|----------------------------|--------|---------|-------|
| Spice | kolendra                   | 10 g   | Boil    | 5 min |
| Spice | Curacao                    | 20 g   | Boil    | 5 min |
| Spice | Skórka słodkiej pomarańczy | 10 g   | Boil    | 5 min |