

## Witbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **4.2**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **1 %/h**
- Boil size **20.2 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18.5 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **61.5C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **20.2 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount     | Yield | EBC |
|-------|---------------------|------------|-------|-----|
| Grain | Viking Pilsner malt | 2 kg (40%) | 82 %  | 4   |
| Grain | Viking Wheat Malt   | 2 kg (40%) | 83 %  | 5   |
| Grain | Płatki owsiane      | 1 kg (20%) | 60 %  | 3   |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Nugget | 10 g   | 60 min | 13 %       |

### Yeasts

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

### Extras

| Type  | Name                     | Amount | Use for | Time   |
|-------|--------------------------|--------|---------|--------|
| Spice | Skórka pomarańczy świeża | 100 g  | Boil    | 1 min  |
| Spice | Kolendra                 | 45 g   | Boil    | 1 min  |
| Other | łuska ryżowa             | 100 g  | Mash    | 50 min |

## Notes

- Fermentacja  
Start 21  
2 dni 23  
Reszta 18  
*Sep 10, 2020, 1:31 AM*