

## #4 Witbier

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **17**
- SRM **3.4**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **4 %**
- Size with trub loss **29.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **6.3 %/h**
- Boil size **34.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.6 liter(s)**

### Steps

- Temp **53 C**, Time **20 min**
- Temp **65 C**, Time **85 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **3 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **85 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **3 min** at **77C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński   | 2 kg (30.1%)   | 80 %  | 4   |
| Grain | Pszeniczny            | 2 kg (30.1%)   | 85 %  | 4   |
| Grain | Pszenica niesłodowana | 2 kg (30.1%)   | 75 %  | 3   |
| Grain | Płatki owsiane        | 0.4 kg (6%)    | 85 %  | 3   |
| Grain | Płatki pszeniczne     | 0.25 kg (3.8%) | 85 %  | 3   |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Marynka           | 20 g   | 45 min | 10 %       |
| Boil    | Lublin (Lubelski) | 20 g   | 10 min | 4 %        |

### Yeasts

| Name                              | Type  | Form | Amount | Laboratory      |
|-----------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's - Belgian Wit M21 | Wheat | Dry  | 20 g   | Mangrove Jack's |

### Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type  | Name                       | Amount | Use for   | Time     |
|-------|----------------------------|--------|-----------|----------|
| Spice | Kolendra                   | 20 g   | Boil      | 5 min    |
| Spice | Curacao                    | 20 g   | Boil      | 5 min    |
| Spice | Skórka słodkiej pomarańczy | 25 g   | Boil      | 5 min    |
| Herb  | Trawa cytrynowa            | 30 g   | Secondary | 3 day(s) |