

## Witek 03.03

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **12**
- SRM **3.6**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **4.9 liter(s)**
- Total mash volume **6.3 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **4.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

| Type        | Name                   | Amount         | Yield | EBC |
|-------------|------------------------|----------------|-------|-----|
| Grain       | Pilzneński             | 1.4 kg (52.8%) | 81 %  | 4   |
| Dry Extract | Ekstrakt słodowy jasny | 0.05 kg (1.9%) | 90 %  | 45  |
| Adjunct     | Pszenica niesłodowana  | 1 kg (37.7%)   | 60 %  | 3   |
| Dry Extract | Maltodekstryna         | 0.1 kg (3.8%)  | 90 %  | 5   |
| Sugar       | Fructose               | 0.1 kg (3.8%)  | 90 %  | 5   |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | lunga             | 3 g    | 60 min | 10.3 %     |
| Boil    | Lublin (Lubelski) | 15 g   | 15 min | 4 %        |

### Yeasts

| Name               | Type  | Form   | Amount | Laboratory       |
|--------------------|-------|--------|--------|------------------|
| FM20 Białe Walonki | Wheat | Liquid | 1 ml   | Fermentum Mobile |

### Extras

| Type  | Name                          | Amount | Use for | Time  |
|-------|-------------------------------|--------|---------|-------|
| Spice | Curacao                       | 10 g   | Boil    | 5 min |
| Spice | Kolendra                      | 10 g   | Boil    | 5 min |
| Spice | Skórka słodkiej<br>pomarańczy | 10 g   | Boil    | 5 min |