

# Witek Urodzinowy

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **13**
- SRM **3**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **59.4C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount          | Yield | EBC |
|-------|-----------------------|-----------------|-------|-----|
| Grain | Pilzneński            | 2 kg (49.3%)    | 81 %  | 4   |
| Grain | Pszenica niesłodowana | 2 kg (49.3%)    | 75 %  | 3   |
| Grain | Oats, Flaked          | 0.053 kg (1.3%) | 80 %  | 2   |

## Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Lublin (Lubelski) | 30 g   | 60 min | 3.4 %      |

## Yeasts

| Name               | Type  | Form  | Amount | Laboratory       |
|--------------------|-------|-------|--------|------------------|
| FM20 Białe Walonki | Wheat | Slant | 100 ml | Fermentum Mobile |

## Extras

| Type   | Name            | Amount | Use for | Time  |
|--------|-----------------|--------|---------|-------|
| Flavor | Curacao         | 20 g   | Boil    | 5 min |
| Flavor | Kolendra        | 20 g   | Boil    | 5 min |
| Flavor | Trawa cytrynowa | 15 g   | Boil    | 5 min |