

# American Witbier (wersja urodzinowa 2016)

- Gravity **12.4 BLG**
- ABV ---
- IBU **27**
- SRM **4.1**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **15 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **75C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name          | Amount       | Yield | EBC |
|-------|---------------|--------------|-------|-----|
| Grain | Pilzneński    | 2.4 kg (50%) | 81 %  | 4   |
| Grain | Wheat, Flaked | 2.4 kg (50%) | 77 %  | 4   |

## Hops

| Use for | Name        | Amount | Time     | Alpha acid |
|---------|-------------|--------|----------|------------|
| Boil    | Marynka     | 20 g   | 60 min   | 10 %       |
| Boil    | Sorachi Ace | 10 g   | 5 min    | 13.8 %     |
| Boil    | Sorachi Ace | 10 g   | 1 min    | 13.8 %     |
| Dry Hop | Sorachi Ace | 30 g   | 5 day(s) | 13.8 %     |

## Yeasts

| Name            | Type | Form | Amount | Laboratory      |
|-----------------|------|------|--------|-----------------|
| Belgian Wit M21 | Ale  | Dry  | 10 g   | Mangrove Jack's |

## Extras

| Type  | Name                | Amount | Use for | Time   |
|-------|---------------------|--------|---------|--------|
| Spice | kolendra            | 20 g   | Boil    | 10 min |
| Spice | curacao             | 20 g   | Boil    | 10 min |
| Spice | skórka z pomarańczy | 30 g   | Boil    | 10 min |