

## #25 American Witbier

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **20**
- SRM **3**
- Style **Witbier**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **13.3 liter(s)**

### Steps

- Temp **64 C**, Time **70 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **10.6 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **70 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type    | Name                  | Amount         | Yield  | EBC |
|---------|-----------------------|----------------|--------|-----|
| Grain   | Pilzneński            | 2 kg (43%)     | 81 %   | 4   |
| Adjunct | Pszenica niesłodowana | 2 kg (43%)     | 75 %   | 3   |
| Grain   | Płatki owsiane        | 0.5 kg (10.8%) | 60 %   | 3   |
| Grain   | Acid Malt             | 0.15 kg (3.2%) | 58.7 % | 6   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Wai-iti | 50 g   | 60 min | 4.1 %      |

### Yeasts

| Name                            | Type  | Form | Amount | Laboratory      |
|---------------------------------|-------|------|--------|-----------------|
| Mangrove Jack's M21 Belgian Wit | Wheat | Dry  | 11 g   | Mangrove Jack's |

### Extras

| Type  | Name     | Amount | Use for | Time   |
|-------|----------|--------|---------|--------|
| Spice | Kolendra | 10 g   | Boil    | 10 min |

|        |                                    |      |      |        |
|--------|------------------------------------|------|------|--------|
| Spice  | Kolendra                           | 10 g | Boil | 3 min  |
| Flavor | Skórka świeżej pomarańczy          | 50 g | Boil | 10 min |
| Flavor | Skórka świeżej pomarańczy          | 50 g | Boil | 3 min  |
| Flavor | Skórka gorzkiej pomarańczy Curacao | 10 g | Boil | 10 min |
| Flavor | Skórka gorzkiej pomarańczy Curacao | 10 g | Boil | 3 min  |
| Flavor | Skórka pomarańczy bergamotki       | 10 g | Boil | 10 min |
| Flavor | Skórka pomarańczy bergamotki       | 10 g | Boil | 3 min  |