

# Afrykański Witbier

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **15**
- SRM **3.3**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

## Steps

- Temp **52 C**, Time **15 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **11.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type    | Name                       | Amount         | Yield | EBC |
|---------|----------------------------|----------------|-------|-----|
| Grain   | Strzegom Pilzneński        | 3 kg (62.5%)   | 80 %  | 4   |
| Grain   | Słód pszeniczny Heidelberg | 0.5 kg (10.4%) | 82 %  | 3   |
| Adjunct | Pszenica niesłodowana      | 1 kg (20.8%)   | 70 %  | 3   |
| Grain   | Płatki owsiane             | 0.3 kg (6.3%)  | 80 %  | 3   |

## Hops

| Use for                  | Name      | Amount | Time   | Alpha acid |
|--------------------------|-----------|--------|--------|------------|
| Boil                     | Fuggles   | 20 g   | 60 min | 5 %        |
| POCZĄTEK GOTOWANIA       |           |        |        |            |
| Aroma (end of boil)      | PIH Blend | 10 g   | 10 min | 12 %       |
| OSTANIE 10 MIN GOTOWANIA |           |        |        |            |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                                    |       |     |      |     |
|------------------------------------|-------|-----|------|-----|
| Mangrove Jack's M20 Bavarian Wheat | Wheat | Dry | 10 g | --- |
|------------------------------------|-------|-----|------|-----|

### Extras

| Type                     | Name     | Amount | Use for | Time   |
|--------------------------|----------|--------|---------|--------|
| Spice                    | kolendra | 15 g   | Boil    | 10 min |
| OSTANIE 10 MIN GOTOWANIA |          |        |         |        |
| Spice                    | Curacao  | 15 g   | Boil    | 10 min |
| OSTANIE 10 MIN GOTOWANIA |          |        |         |        |