

# Afro

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **37**
- SRM **21.8**
- Style **American Brown Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **22.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **22.4 liter(s)** of wort

## Fermentables

| Type    | Name                             | Amount        | Yield | EBC  |
|---------|----------------------------------|---------------|-------|------|
| Grain   | Viking Pale Ale malt             | 4 kg (81.6%)  | 80 %  | 5    |
| Grain   | Strzegom Karmel 150              | 0.1 kg (2%)   | 75 %  | 150  |
| Grain   | Strzegom Karmel 600              | 0.1 kg (2%)   | 68 %  | 601  |
| Grain   | Fawcett - Pszeniczny Czekoladowy | 0.1 kg (2%)   | 73 %  | 1001 |
| Grain   | Strzegom Czekoladowy ciemny      | 0.1 kg (2%)   | 68 %  | 1200 |
| Grain   | Płatki orkiszowe                 | 0.2 kg (4.1%) | 80 %  | 4    |
| Adjunct | Pszenica niesłodowana            | 0.3 kg (6.1%) | 75 %  | 3    |

## Hops

| Use for | Name   | Amount | Time     | Alpha acid |
|---------|--------|--------|----------|------------|
| Boil    | Citra  | 25 g   | 15 min   | 12 %       |
| Boil    | Simcoe | 25 g   | 15 min   | 13.2 %     |
| Dry Hop | Simcoe | 50 g   | 1 day(s) | 13.2 %     |

|         |        |      |          |      |
|---------|--------|------|----------|------|
| Dry Hop | Mosaic | 25 g | 1 day(s) | 10 % |
| Dry Hop | Citra  | 25 g | 1 day(s) | 12 % |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale  | Dry  | 11.5 g | ---        |

## Notes

- Fermentacja 16 stopni.  
*Mar 1, 2020, 1:04 PM*