

## undefined

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **43**
- SRM **4.3**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.4 liter(s)**

### Steps

- Temp **67 C**, Time **75 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **7.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount         | Yield  | EBC |
|-------|--------------------------|----------------|--------|-----|
| Grain | GlobalMalt Pale Ale/Pils | 2 kg (76.9%)   | 82 %   | 4.5 |
| Grain | Płatki owsiane           | 0.25 kg (9.6%) | 85 %   | 3   |
| Grain | GlobalMalt Monachijski I | 0.25 kg (9.6%) | 80.2 % | 16  |
| Grain | GlobalMalt Pszeniczny    | 0.1 kg (3.8%)  | 84 %   | 5   |

### Hops

| Use for                              | Name   | Amount | Time     | Alpha acid |
|--------------------------------------|--------|--------|----------|------------|
| Boil                                 | Mosaic | 10 g   | 60 min   | 12.4 %     |
| Whirlpool                            | Mosaic | 30 g   | 5 min    | 12 %       |
| Wrzucone zaraz po wyłączeniu palnika |        |        |          |            |
| Whirlpool                            | Citra  | 30 g   | 5 min    | 12.8 %     |
| Wrzucone zaraz po wyłączeniu palnika |        |        |          |            |
| Dry Hop                              | Mosaic | 25 g   | 2 day(s) | 12 %       |
| Dry Hop                              | Citra  | 25 g   | 2 day(s) | 12.8 %     |

### Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Name                 | Type | Form   | Amount  | Laboratory       |
|----------------------|------|--------|---------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 1000 ml | Fermentum Mobile |
| Starter 2 dni 1L     |      |        |         |                  |