

# mango/porzeczka apa

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **36**
- SRM **5.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **46.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **33.7 liter(s)**
- Total mash volume **43.9 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **33.7 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **23.2 liter(s)** of **76C** water or to achieve **46.7 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount       | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt   | 9 kg (88.2%) | 80 %  | 5   |
| Grain | Pszeniczny             | 1 kg (9.8%)  | 85 %  | 4   |
| Grain | Weyermann Caramunich 3 | 0.2 kg (2%)  | 76 %  | 150 |

## Hops

| Use for                             | Name       | Amount | Time     | Alpha acid |
|-------------------------------------|------------|--------|----------|------------|
| Boil                                | Citra      | 30 g   | 30 min   | 12 %       |
| Aroma (end of boil)                 | Centennial | 20 g   | 20 min   | 10.5 %     |
| Aroma (end of boil)                 | Centennial | 30 g   | 15 min   | 10.5 %     |
| Aroma (end of boil)                 | Centennial | 30 g   | 10 min   | 10.5 %     |
| Aroma (end of boil)                 | Centennial | 20 g   | 0 min    | 10.5 %     |
| Aroma (end of boil)                 | Citra      | 20 g   | 0 min    | 12 %       |
| Dry Hop                             | Amarillo   | 100 g  | 3 day(s) | 9.5 %      |
| dodane do wersji z czarna porzeczka |            |        |          |            |
| Dry Hop                             | Mosaic     | 100 g  | 3 day(s) | 10 %       |
| dodane do wersji z pulpą mango      |            |        |          |            |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| US05 | Ale  | Dry  | 23 g   | ---        |

## Extras

| Type   | Name                   | Amount | Use for | Time      |
|--------|------------------------|--------|---------|-----------|
| Flavor | pulpa mango            | 1000 g | Primary | 12 day(s) |
| Flavor | pulpa czarna porzeczka | 1000 g | Primary | 12 day(s) |