

# Mandarina Ale

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **58**
- SRM **3.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **6 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **63 C**, Time **75 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **75 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (83.3%) | 80 %  | 5   |
| Grain | Pszeniczny           | 1 kg (16.7%) | 85 %  | 4   |

## Hops

| Use for   | Name              | Amount | Time   | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil      | Magnum            | 40 g   | 60 min | 11 %       |
| Boil      | Mandarina Bavaria | 50 g   | 5 min  | 11 %       |
| Whirlpool | Mandarina Bavaria | 50 g   | 15 min | 11 %       |

## Yeasts

| Name                        | Type | Form  | Amount  | Laboratory       |
|-----------------------------|------|-------|---------|------------------|
| FM54 Gorączka kalifornijska | Ale  | Slant | 1000 ml | Fermentum Mobile |