

# Mandaryna Mandaryna

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **40**
- SRM **7.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.9 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **55.6C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

## Fermentables

| Type  | Name  | Amount         | Yield | EBC |
|-------|---|----------------|-------|-----|
| Grain | Viking Pale Ale malt                        | 3 kg (40.8%)   | 80 %  | 5   |
| Grain | Strzegom Pilzneński                         | 3 kg (40.8%)   | 80 %  | 4   |
| Grain | Płatki owsiane                              | 0.5 kg (6.8%)  | 60 %  | 3   |
| Grain | Płatki pszeniczne                           | 0.5 kg (6.8%)  | 60 %  | 3   |
| Grain | Słód jęcznienny Caramunich Typ II Weyermann | 0.35 kg (4.8%) | 73 %  | 120 |

## Hops

| Use for   | Name              | Amount | Time     | Alpha acid |
|-----------|-------------------|--------|----------|------------|
| Boil      | lunga             | 30 g   | 60 min   | 11 %       |
| Boil      | lunga             | 10 g   | 15 min   | 11 %       |
| Whirlpool | Centennial        | 20 g   | 15 min   | 11.3 %     |
| Dry Hop   | Mandaryna Bavaria | 100 g  | 4 day(s) | 8.9 %      |
| Dry Hop   | Centennial        | 40 g   | 4 day(s) | 11.3 %     |

## Yeasts

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

|       |     |     |      |     |
|-------|-----|-----|------|-----|
| us-05 | Ale | Dry | 11 g | --- |
|-------|-----|-----|------|-----|