# Mandaryna Mandaryna

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- 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 jęczmienny Caramunich Typ II Weyermann | 0.35 kg *(4.8%)* | 73 % | 120 |

## Hops

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

## Yeasts

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

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

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