

# 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
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us-05	Ale	Dry	11 g	---
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