

# Mandala

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **43**
- SRM **4.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	3.85 kg (81.9%)	83 %	6
Grain	Płatki owsiane	0.65 kg (13.8%)	85 %	3
Grain	Słód owsiany Fawcett	0.2 kg (4.3%)	61 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Amarillo	14 g	5 min	9.5 %
Aroma (end of boil)	Centennial	14 g	5 min	10.5 %
Aroma (end of boil)	Mosaic	14 g	5 min	10 %
Whirlpool	Amarillo	26 g	30 min	9.5 %
Whirlpool przy 70 stopniach				
Whirlpool	Centennial	26 g	30 min	10.5 %
Whirlpool	Mosaic	26 g	30 min	10 %
Dry Hop	Amarillo	60 g	2 day(s)	9.5 %
Dry Hop	Centennial	60 g	2 day(s)	10.5 %
Dry Hop	Mosaic	60 g	2 day(s)	10 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Wyeast - London Ale III	Ale	Liquid	1000 ml	Wyeast Labs