

# MANDARYNA W MAGNUMCE

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- Gravity **12.1 BLG**
- ABV ---
- IBU **42**
- SRM **5.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.3 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.3 kg (82.7%)	80 %	4
Grain	Caramel pils Bestmalz	0.3 kg (5.8%)	75 %	2
Grain	Fawcett - Crystal red	0.3 kg (5.8%)	--- %	0
Grain	Strzegom Bursztynowy	0.3 kg (5.8%)	70 %	49

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	11.5 %
Aroma (end of boil)	Magnum	25 g	15 min	11.5 %
Whirlpool	Magnum	25 g	0 min	11.5 %
Whirlpool	Mandarina Bavaria	25 g	0 min	7.6 %
Dry Hop	Mandarina Bavaria	25 g	5 day(s)	7.6 %
Dry Hop	Magnum	25 g	5 day(s)	11.5 %