

# Urodzinowa APA Mani

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- Gravity **13.1 BLG**
- ABV ---
- IBU **36**
- SRM **4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **25.2 liter(s)**
- Total mash volume **30.2 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **25.2 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **2.6 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5.04 kg (100%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	18 g	60 min	11 %
Boil	Cascade PL	8.4 g	30 min	5.5 %
Boil	Citra	6 g	15 min	12 %
Boil	Mosaic	6 g	15 min	12 %
Dry Hop	Citra	24 g	3 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	84 g	Fermentis