

# Urodzinowe - Aga i Bartek

- Gravity **14 BLG**
- ABV ---
- IBU **46**
- SRM **4.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **31.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (40%)	81 %	4
Grain	Pale Ale	3 kg (60%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	8 g	50 min	4.2 %
Boil	Marynka	11 g	50 min	10 %
Boil	Simcoe	10 g	20 min	13 %
Boil	Ahtanum	15 g	20 min	5 %
Boil	Equinox	10 g	20 min	13.1 %
Boil	Cascade	20 g	5 min	6 %
Boil	Citra	10 g	5 min	12 %
Boil	Simcoe	10 g	5 min	13 %
Boil	Equinox	5 g	5 min	13.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa West Coast	Ale	Dry	11.5 g	Gozdawa