

# Hazy apa urodzinowa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **27**
- SRM **5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.7 liter(s)**
- Total mash volume **27.9 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **21.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (32.3%)	80 %	5
Grain	Pszeniczny	1 kg (16.1%)	85 %	4
Grain	Płatki owsiane	1.2 kg (19.4%)	85 %	3
Grain	Simpsons - Golden Naked Oats	1 kg (16.1%)	73 %	20
Grain	Viking Pilsner malt	1 kg (16.1%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	HBC 472	30 g	60 min	9.6 %
Aroma (end of boil)	HBC 472	20 g	1 min	9.6 %
Dry Hop	HBC 472	50 g	5 day(s)	9.6 %
Dry Hop	BRU-1	50 g	5 day(s)	15.4 %
Dry Hop	Sabro	50 g	5 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand new endland	Ale	Dry	11 g	---