

# Bezglutenowe 100l

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **36**
- SRM ---
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **100 liter(s)**
- Trub loss **5 %**
- Size with trub loss **106 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **127.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **81.9 liter(s)**
- Total mash volume **105.3 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **81.9 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **30 min** at **72C**
- Sparge using **69.1 liter(s)** of **76C** water or to achieve **127.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód gryczany	13.35 kg (57.1%)	48 %	---
Grain	Grys kukurydziany	3.35 kg (14.3%)	80 %	---
Grain	Płatki ryżowe	3.35 kg (14.3%)	85 %	---
Grain	Proso	3.35 kg (14.3%)	51 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	33.35 g	60 min	9.5 %
Boil	Amarillo	33.35 g	45 min	9.5 %
Boil	Amarillo	66.65 g	30 min	9.5 %
Boil	Amarillo	66.65 g	15 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	57.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Trawa cytrynowa	150 g	Boil	5 min

Spice	Curacao	66.65 g	Boil	15 min
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