

# Ryża IPA

- Gravity **15 BLG**
- ABV ---
- IBU **63**
- SRM **4.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **62 min**
- Evaporation rate **10 %/h**
- Boil size **25.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4 kg (72.7%)	80 %	4
Grain	Płatki ryżowe	0.5 kg (9.1%)	70 %	2
Grain	Pszeniczny	1 kg (18.2%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	45 g	15 min	12 %
Aroma (end of boil)	Citra	45 g	10 min	12 %
Aroma (end of boil)	Citra	45 g	5 min	12 %
Whirlpool	Citra	45 g	0 min	12 %
Dry Hop	Citra	45 g	7 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	200 ml	Fermentum Mobile