

# Żytni Ratunek (rye ipa)

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **56**
- SRM **4.9**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **44 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Żytni	1 kg (16.7%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	50 g	50 min	11 %
Boil	Sybilla	50 g	5 min	3.5 %
Dry Hop	Sybilla	50 g	3 day(s)	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis