

# Żytnie

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **23**
- SRM **6.4**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **27.7 liter(s)**
- Total mash volume **35.6 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **27.7 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	5 kg (63.3%)	85 %	8
Grain	Monachijski	1.5 kg (19%)	80 %	16
Grain	Pilzneński	1 kg (12.7%)	81 %	4
Grain	Carabelge	0.4 kg (5.1%)	80 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	50 g	60 min	5.5 %
Boil	Perle	20 g	15 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew WB-06	Wheat	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Other	łuska ryżowa	150 g	Boil	0 min