

# Żytnie 1.0

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **21**
- SRM **7**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.6 liter(s)**
- Total mash volume **36.8 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **27.6 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **29.7 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	5 kg (54.3%)	85 %	8
Grain	Pilzneński	1.6 kg (17.4%)	81 %	4
Grain	Monachijski	2 kg (21.7%)	80 %	16
Grain	zakwaszajacy	0.1 kg (1.1%)	50 %	5
Grain	Caramunich® typ I	0.5 kg (5.4%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Mittelfruh	70 g	60 min	4.5 %
Boil	Hallertauer Mittelfruh	20 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Bavarian Wheat 11	Wheat	Slant	500 ml	Gozdawa

## Notes

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

- fermentacja w niskiej temperaturze (około 18 stopni) przez dwa tygodnie  
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