# Żytnie

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **30**
- SRM **16.2**
- Style **Roggenbier**

## 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 **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **44 C**, Time **10 min**
- Temp **54 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **10 min** at **54C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Żytni | 3 kg *(51.7%)* | 85 % | 8 |
| Grain | Monachijski | 1 kg *(17.2%)* | 80 % | 16 |
| Grain | Pilzneński | 1 kg *(17.2%)* | 81 % | 4 |
| Grain | Caraaroma | 0.2 kg *(3.4%)* | 78 % | 400 |
| Grain | Carafa III | 0.1 kg *(1.7%)* | 70 % | 1034 |
| Grain | Płatki owsiane | 0.5 kg *(8.6%)* | 60 % | 3 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Perle | 35 g | 60 min | 7 % |
| Boil | Perle | 15 g | 15 min | 7 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| safale wb 06 | Wheat | Slant | 600 ml | --- |

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