

# Pszenżytnie

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **15**
- SRM **3.9**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **60 C**, Time **40 min**
- Temp **70 C**, Time **20 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **60C**
- Keep mash **20 min** at **70C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.2 kg (61.5%)	81 %	4
Grain	Pszeniczny	1 kg (19.2%)	85 %	4
Grain	Żytni	1 kg (19.2%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	60 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	250 ml	Fermentum Mobile