

# 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 |