

# Roggenbier Żytnie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **13**
- SRM **10**
- 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 **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 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 **16.4 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 **13.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Żytni                       | 2.2 kg (46.8%) | 85 %  | 8   |
| Grain | Strzegom Monachijski typ II | 2.2 kg (46.8%) | 79 %  | 22  |
| Grain | Karmelowy żytni Strzegom    | 0.3 kg (6.4%)  | 75 %  | 150 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Tettnang | 30 g   | 60 min | 4 %        |

## Yeasts

| Name  | Type  | Form  | Amount | Laboratory |
|-------|-------|-------|--------|------------|
| wb-06 | Wheat | Slant | 200 ml | ---        |