

# Roggenbier

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **18**
- SRM **11.6**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **44 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **5.8 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

## Fermentables

| Type  | Name                                | Amount        | Yield | EBC |
|-------|-------------------------------------|---------------|-------|-----|
| Grain | Viking Munich Malt                  | 1 kg (30.3%)  | 78 %  | 20  |
| Grain | Rye Malt                            | 2 kg (60.6%)  | 63 %  | 10  |
| Grain | Słód Caramunich<br>Typ II Weyermann | 0.3 kg (9.1%) | 73 %  | 120 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Iunga    | 8 g    | 60 min | 11 %       |
| Boil    | Izabella | 10 g   | 1 min  | 5.1 %      |

## Yeasts

| Name                   | Type  | Form   | Amount | Laboratory       |
|------------------------|-------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 0.8 ml | Fermentum Mobile |