

# Roggenbier 50L

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **16**
- SRM **8.6**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **43.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **5 %/h**
- Boil size **49.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **38.5 liter(s)**
- Total mash volume **49.5 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **5 min**

## Mash step by step

- Heat up **38.5 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**
- Keep mash **5 min** at **79C**
- Sparge using **21.6 liter(s)** of **76C** water or to achieve **49.1 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount       | Yield | EBC |
|-------|-------------------|--------------|-------|-----|
| Grain | Żytni             | 7 kg (63.6%) | 85 %  | 8   |
| Grain | Monachijski       | 2 kg (18.2%) | 80 %  | 16  |
| Grain | Pilzneński        | 1 kg (9.1%)  | 81 %  | 4   |
| Grain | Caramunich® typ I | 1 kg (9.1%)  | 73 %  | 80  |

## Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Hallertau | 60 g   | 60 min | 4.5 %      |
| Boil    | Hallertau | 20 g   | 15 min | 4.5 %      |

## Yeasts

| Name                   | Type  | Form   | Amount | Laboratory       |
|------------------------|-------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 60 ml  | Fermentum Mobile |