

# Roggenbier

- Gravity **14 BLG**
- ABV ---
- IBU **23**
- SRM **9.9**
- 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 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 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 **0 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **79C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Żytni                      | 3 kg (60%)    | 85 %  | 8   |
| Grain | Strzegom Monachijski typ I | 1 kg (20%)    | 79 %  | 16  |
| Grain | Strzegom Pilzneński        | 0.75 kg (15%) | 80 %  | 4   |
| Grain | weyermann caramunich       | 0.25 kg (5%)  | 73 %  | 90  |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Hallertauer Tradition | 25 g   | 60 min | 6.1 %      |
| Boil    | Hallertauer Tradition | 15 g   | 15 min | 6.1 %      |

## Yeasts

| Name | Type  | Form  | Amount | Laboratory       |
|------|-------|-------|--------|------------------|
| FM41 | Wheat | Slant | 1 ml   | Fermentum Mobile |