

# .ROGGENBIER

- Gravity **12.6 BLG**
- ABV ---
- IBU **21**
- SRM **15.5**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Żytni                    | 2 kg (41.7%)   | 85 %  | 8   |
| Grain | Karmelowy żytni Strzegom | 0.2 kg (4.2%)  | 75 %  | 150 |
| Grain | Monachijski              | 1.5 kg (31.3%) | 80 %  | 16  |
| Grain | Viking Pale Ale malt     | 1 kg (20.8%)   | 80 %  | 5   |
| Grain | Weyermann - Carafa I     | 0.1 kg (2.1%)  | 70 %  | 690 |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Marynka               | 15 g   | 60 min | 10 %       |
| Boil    | Saaz (Czech Republic) | 15 g   | 15 min | 4.5 %      |
| Boil    | Saaz (Czech Republic) | 15 g   | 5 min  | 4.5 %      |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                        |       |       |        |                  |
|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 150 ml | Fermentum Mobile |
|------------------------|-------|-------|--------|------------------|