

## #55 Roggenbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **22**
- SRM **6.6**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **46 C**, Time **20 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **2 min**

### Mash step by step

- Heat up **17.3 liter(s)** of strike water to **50.3C**
- Add grains
- Keep mash **20 min** at **46C**
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **79C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Żytni               | 3 kg (52.2%)   | 85 %  | 8   |
| Grain | Viking Pilsner malt | 1.5 kg (26.1%) | 82 %  | 4   |
| Grain | Viking Munich Malt  | 1 kg (17.4%)   | 78 %  | 18  |
| Grain | Caramunich® typ I   | 0.25 kg (4.3%) | 73 %  | 80  |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 20 g   | 60 min | 10 %       |
| Boil    | lunga | 10 g   | 15 min | 10 %       |

### Yeasts

| Name                   | Type  | Form  | Amount | Laboratory       |
|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 200 ml | Fermentum Mobile |

### Notes

- start = 15-17°C

Fermentacja nie powinna przekraczać 21°C  
*Mar 31, 2021, 9:19 AM*