

## #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  
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