

# Roggenbier I

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- Gravity **11.9 BLG**
- ABV ---
- IBU **14**
- SRM **8.4**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **30 %/h**
- Boil size **15.6 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

## Steps

- Temp **45 C**, Time **20 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **8.4 liter(s)** of strike water to **49.2C**
- Add grains
- Keep mash **20 min** at **45C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsneński	1.2 kg (42.9%)	80 %	4
Grain	Weyermann - Żytni	0.8 kg (28.6%)	85 %	8
Grain	Weyermann - Monachijski I	0.5 kg (17.9%)	80 %	16
Grain	Weyermann - CaraHell	0.3 kg (10.7%)	74 %	25

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	PL Lubelski	15 g	60 min	3.6 %
Boil	PL Lubelski	10 g	5 min	3.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM40 Pszeniczny Łan	Wheat	Liquid	100 ml	Fermentum Mobile