

# Roggenbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **18.5**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **16.8 liter(s)**

## Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **9.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	1.25 kg (46.7%)	85 %	8
Grain	Strzegom Monachijski typ I	1 kg (37.4%)	79 %	16
Grain	Strzegom Pilzneński	0.2 kg (7.5%)	80 %	4
Grain	Special W	0.125 kg (4.7%)	77 %	300
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (3.7%)	20 %	1001

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	20 g	60 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	30 ml	---

## Extras

Type	Name	Amount	Use for	Time
Other	Łuska gryczana	50 g	Mash	15 min