

# Roggenbier

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **14.4**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.9 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.5 kg (51.3%)	85 %	8
Grain	Strzegom Pilzneński	1 kg (20.5%)	80 %	4
Grain	Monachijski	1 kg (20.5%)	80 %	16
Grain	Carafa	0.15 kg (3.1%)	70 %	664
Grain	Karmelowy Czerwony	0.1 kg (2.1%)	75 %	59
Grain	Caraaroma	0.12 kg (2.5%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	lunga	10 g	10 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	200 ml	Fermentum Mobile