

# ROGGENBIER - receptura D. Chrapek

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **14**
- SRM **7.4**
- 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 **2.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **19.3 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **0 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **48.8C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **79C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	3.5 kg (63.6%)	85 %	8
Grain	Monachijski - Słodownia Optima	1 kg (18.2%)	78.9 %	18
Grain	Pilzneński Jasny - Słodownia Optima	0.75 kg (13.6%)	82.6 %	3
Grain	Caramunich® typ I	0.25 kg (4.5%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Mittelfruh	30 g	60 min	3.5 %
Boil	Hallertauer Mittelfruh	10 g	45 min	3.5 %

## Yeasts

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