

# Smoked Roggebier

- Gravity **14.3 BLG**
- ABV ---
- IBU **22**
- SRM **13**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 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 **5 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **79C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	wędzony czereśnia strzegom	1 kg (14.3%)	82 %	10
Grain	Pilzneński	1.5 kg (21.4%)	81 %	4
Grain	Żytni	3 kg (42.9%)	85 %	8
Grain	Słód Wędzony bukiem	1 kg (14.3%)	77 %	6
Grain	Karmelowy żytni Strzegom	0.5 kg (7.1%)	75 %	200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	50 g	60 min	4.3 %
Boil	Hersbrucker	20 g	30 min	4.3 %
Boil	Hersbrucker	20 g	5 min	4.3 %
Boil	Hersbrucker	10 g	0 min	4.3 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
FM40 Pszeniczny Łan	Wheat	Liquid	800 ml	Fermentum Mobile