

# 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  |