

# Rauch Roggenbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **19**
- SRM **12.6**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19.9 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 **14.3 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 **24.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Żytni               | 2.5 kg (43.9%) | 85 %  | 8   |
| Grain | Wędzony Bestmalz    | 2 kg (35.1%)   | 82 %  | 5   |
| Grain | Pilzneński          | 0.5 kg (8.8%)  | 81 %  | 4   |
| Grain | Monachijski IREKS   | 0.3 kg (5.3%)  | 79 %  | 22  |
| Grain | Karmelowy 400 Ebony | 0.4 kg (7%)    | 75 %  | 400 |

## Hops

| Use for             | Name        | Amount | Time   | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil                | Mittelfruh  | 50 g   | 80 min | 3.5 %      |
| Aroma (end of boil) | Hersbrucker | 40 g   | 10 min | 2.7 %      |

## Yeasts

| Name  | Type  | Form  | Amount | Laboratory |
|-------|-------|-------|--------|------------|
| WB-06 | Wheat | Slant | 200 ml | Fermentis  |