

Roggenbier

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **16**
- SRM **6.3**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 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 **1 min**

Mash step by step

- Heat up **16.5 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 **1 min** at **79C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|-----------------|-------|-----|
| Grain | Żytni | 3.5 kg (63.6%) | 85 % | 8 |
| Grain | Monachijski | 1 kg (18.2%) | 80 % | 16 |
| Grain | Pilzneński | 0.75 kg (13.6%) | 81 % | 4 |
| Grain | Caramunich® typ I | 0.25 kg (4.5%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Hallertau | 30 g | 60 min | 4.7 % |
| Boil | Hallertau | 20 g | 15 min | 4.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|-------|------|--------|------------|
| Mauribrew Weiss Y1433 | Wheat | Dry | 11 g | Mauribrew |