

Roggenbier 50L

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **16**
- SRM **8.6**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **43.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **5 %/h**
- Boil size **49.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **38.5 liter(s)**
- Total mash volume **49.5 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 **38.5 liter(s)** of strike water to **47.4C**
- 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 **21.6 liter(s)** of **76C** water or to achieve **49.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|--------------|-------|-----|
| Grain | Żytni | 7 kg (63.6%) | 85 % | 8 |
| Grain | Monachijski | 2 kg (18.2%) | 80 % | 16 |
| Grain | Pilzneński | 1 kg (9.1%) | 81 % | 4 |
| Grain | Caramunich® typ I | 1 kg (9.1%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Hallertau | 60 g | 60 min | 4.5 % |
| Boil | Hallertau | 20 g | 15 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 60 ml | Fermentum Mobile |