

Roggenbier_1

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **18**
- SRM **17.5**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.3 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **73 C**, Time **30 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **30 min** at **73C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|------|
| Grain | Żytni | 2 kg (52.2%) | 85 % | 8 |
| Grain | Pilzneński | 0.7 kg (18.3%) | 81 % | 4 |
| Grain | Monachijski | 0.65 kg (17%) | 80 % | 16 |
| Grain | Caramunich® typ I | 0.36 kg (9.4%) | 73 % | 80 |
| Grain | Weyermann - Dehusked Carafo III | 0.12 kg (3.1%) | 70 % | 1024 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 20 g | 60 min | 5.1 % |
| Boil | East Kent Goldings | 5 g | 15 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|--------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 30 ml | Fermentum Mobile |