

Roggenbier

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **16**
- SRM **13.2**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.4 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **31.2 liter(s)**

Steps

- Temp **68 C**, Time **90 min**

Mash step by step

- Heat up **23.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **33.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Żytni | 3.5 kg (44.9%) | 85 % | 8 |
| Grain | Monachijski | 1.9 kg (24.4%) | 80 % | 16 |
| Grain | Pilzneński | 1.7 kg (21.8%) | 81 % | 4 |
| Grain | Caramunich® typ I | 0.6 kg (7.7%) | 73 % | 80 |
| Grain | Jęczmień palony | 0.1 kg (1.3%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Tettnang | 40 g | 60 min | 4 % |
| Boil | Tettnang | 10 g | 15 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|--------|-----------|------------------|
| FM41 Gwoździe i Banany | Wheat | Liquid | 119.05 ml | Fermentum Mobile |