

.ROGGGENBIER

- Gravity **12.6 BLG**
- ABV ---
- IBU **21**
- SRM **15.5**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Żytni | 2 kg (41.7%) | 85 % | 8 |
| Grain | Karmelowy żytni Strzegom | 0.2 kg (4.2%) | 75 % | 150 |
| Grain | Monachijski | 1.5 kg (31.3%) | 80 % | 16 |
| Grain | Viking Pale Ale malt | 1 kg (20.8%) | 80 % | 5 |
| Grain | Weyermann - Carafa I | 0.1 kg (2.1%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Boil | Saaz (Czech Republic) | 15 g | 15 min | 4.5 % |
| Boil | Saaz (Czech Republic) | 15 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 150 ml | Fermentum Mobile |
|------------------------|-------|-------|--------|------------------|