

Roggenbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **18.5**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **16.8 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **9.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|-----------------|-------|------|
| Grain | Żytni | 1.25 kg (46.7%) | 85 % | 8 |
| Grain | Strzegom Monachijski typ I | 1 kg (37.4%) | 79 % | 16 |
| Grain | Strzegom Pilzneński | 0.2 kg (7.5%) | 80 % | 4 |
| Grain | Special W | 0.125 kg (4.7%) | 77 % | 300 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.1 kg (3.7%) | 20 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Tradition | 20 g | 60 min | 5.5 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------------|--------|---------|--------|
| Other | Łuska gryczana | 50 g | Mash | 15 min |