

Polish Imperial Roggenbier

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **42**
- SRM **5.8**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **60 min** at **63C**
- Keep mash **1 min** at **76C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Żytni | 3 kg (55.6%) | 85 % | 8 |
| Grain | Pszeniczny | 1 kg (18.5%) | 85 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (18.5%) | 79 % | 16 |
| Grain | Oats, Flaked | 0.4 kg (7.4%) | 80 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|-------------|--------|--------|------------|
| First Wort | Amora Preta | 20 g | 60 min | 11.2 % |
| Boil | Amora Preta | 20 g | 30 min | 11.2 % |
| Whirlpool | Amora Preta | 60 g | 1 min | 11.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 100 ml | Fermentum Mobile |