

żyt

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **12**
- SRM **18.2**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **47 C**, Time **40 min**
- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **51.5C**
- Add grains
- Keep mash **40 min** at **47C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **25.4 liter(s)** of **76C** water or to achieve **38.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Karmelowy żytni Strzegom | 2.57 kg (38.1%) | 75 % | 150 |
| Grain | Strzegom Pilzneński | 2.9 kg (42.9%) | 80 % | 4 |
| Grain | Monachijski | 1.29 kg (19%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|---------|--------|------------|
| Boil | Perle | 21.43 g | 10 min | 7 % |
| Boil | Perle | 10.71 g | 40 min | 7 % |
| Boil | Perle | 5.36 g | 60 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------|
| Safbrew WB-06 | Wheat | Dry | 7.5 g | Safbrew |