

żytnie

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **23**
- SRM **6.8**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.2 liter(s)**
- Total mash volume **16.2 liter(s)**

Steps

- Temp **50 C**, Time **60 min**
- Temp **68 C**, Time **50 min**

Mash step by step

- Heat up **12.2 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **60 min** at **50C**
- Keep mash **50 min** at **68C**
- Sparge using **10.9 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|-----------------|-------|-----|
| Grain | Żytni | 2.5 kg (61.7%) | 85 % | 8 |
| Grain | Pilzneński | 0.5 kg (12.3%) | 81 % | 4 |
| Grain | Monachijski | 0.75 kg (18.5%) | 80 % | 16 |
| Grain | Caramunich® typ I | 0.125 kg (3.1%) | 73 % | 80 |
| Grain | Płatki orkiszowe | 0.18 kg (4.4%) | 60 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Aurora | 15 g | 60 min | 9.6 % |
| Boil | Tradition | 10 g | 10 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|-------|-------|--------|------------|
| Mauribrew Weiss Y1433 | Wheat | Slant | 200 ml | --- |