

## żytni porterek

- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **28**
- SRM **49.8**
- Style **Baltic Porter**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **17.5 liter(s)**

### Steps

- Temp **72 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **12.5 liter(s)** of strike water to **82.4C**
- Add grains
- Keep mash **90 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount       | Yield | EBC |
|-------|-----------------------------|--------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 2 kg (40%)   | 79 %  | 22  |
| Grain | Żytni                       | 1.5 kg (30%) | 85 %  | 8   |
| Grain | czekoladowy wayerman żytni  | 0.5 kg (10%) | 70 %  | 700 |
| Grain | Karmelowy żytni Strzegom    | 0.5 kg (10%) | 75 %  | 150 |
| Grain | Weyermann Specjal W         | 0.5 kg (10%) | 68 %  | 300 |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnat | 17 g   | 60 min | 11.2 %     |