

## sweet żytni stout

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **34**
- SRM **37**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount          | Yield  | EBC  |
|-------|----------------------------------|-----------------|--------|------|
| Grain | Suflet Pale Ale malt             | 3 kg (47.2%)    | 80 %   | 5    |
| Grain | Żytni                            | 1 kg (15.7%)    | 85 %   | 8    |
| Grain | Karmelowy żytni Strzegom         | 0.5 kg (7.9%)   | 75 %   | 150  |
| Grain | Słód Żytni Czekoladowy Weyermann | 1 kg (15.7%)    | 75 %   | 700  |
| Grain | Carafa III                       | 0.1 kg (1.6%)   | 70 %   | 1034 |
| Sugar | Milk Sugar (Lactose)             | 0.75 kg (11.8%) | 76.1 % | 0    |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 35 g   | 50 min | 11 %       |

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 5 g    | Mash    | 90 min |