

108 stout żytni

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **23**
- SRM **21.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **30.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **72 C**, Time **60 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **81.3C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ I | 4 kg (64.7%) | 79 % | 16 |
| Grain | Strzegom Karmel 150 | 1.4 kg (22.7%) | 75 % | 150 |
| Grain | Żytni | 0.6 kg (9.7%) | 85 % | 8 |
| Grain | Carafa II | 0.18 kg (2.9%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 40 g | 2 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 200 ml | 105 |