

Polish stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **29.5**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 3 kg (58.3%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ II | 1 kg (19.4%) | 79 % | 22 |
| Grain | Jęczmień palony | 0.25 kg (4.9%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.5 kg (9.7%) | 60 % | 3 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.9%) | 68 % | 1200 |
| Grain | Fawcett - Brown | 0.2 kg (3.9%) | 72 % | 180 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Whirlpool | Oktawia | 20 g | 10 min | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|---------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 1000 ml | Fermentum Mobile |