

pierwszy stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **30**
- SRM **29.7**
- 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 **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **68 C**, Time **0 min**
- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **0 min** at **68C**
- Keep mash **5 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (57.7%) | 80 % | 5 |
| Grain | Viking Munich Malt | 1 kg (19.2%) | 78 % | 22 |
| Grain | Płatki owsiane | 0.6 kg (11.5%) | 60 % | 3 |
| Grain | Carafa III | 0.2 kg (3.8%) | 70 % | 1400 |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (4.8%) | 68 % | 400 |
| Grain | Jęczmień palony | 0.15 kg (2.9%) | 55 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-------------------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Whirlpool | Lublin (Lubelski) | 25 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |