

Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **40**
- SRM **44.1**
- 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 **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 4 kg (62.5%) | 80 % | 4 |
| Grain | Strzegom Karmel 600 | 0.2 kg (3.1%) | 68 % | 601 |
| Grain | Jęczmień palony | 0.4 kg (6.2%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (6.2%) | 68 % | 1200 |
| Grain | Płatki owsiane | 0.5 kg (7.8%) | 60 % | 3 |
| Grain | Viking Pale Ale malt | 0.9 kg (14.1%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Magnum | 25 g | 60 min | 11.5 % |
| Boil | Marynka | 30 g | 10 min | 6.7 % |

Yeasts

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