

Stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **37**
- SRM **30.8**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **14.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **9.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **14.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 2.2 kg (71%) | 79 % | 6 |
| Grain | Jęczmień palony | 0.2 kg (6.5%) | 55 % | 985 |
| Grain | Strzegom Czekoladowy ciemny | 0.1 kg (3.2%) | 68 % | 1200 |
| Grain | Jęczmień niesłodowany | 0.6 kg (19.4%) | 75 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Tradition | 15 g | 60 min | 5.5 % |
| Boil | Challenger | 15 g | 60 min | 7 % |

Yeasts

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