

Stout czekoladowy

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **44**
- SRM **25.8**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (59.4%) | 80 % | 5 |
| Grain | Monachijski | 1 kg (19.8%) | 80 % | 15 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (4%) | 68 % | 900 |
| Grain | Jęczmień palony | 0.35 kg (6.9%) | 55 % | 985 |
| Grain | Płatki owsiane | 0.5 kg (9.9%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 50 g | 60 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 250 ml | --- |