

Dry stout

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **37**
- SRM **24.6**
- Style **Foreign Extra 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|---------------|-------|-----|
| Grain | Pilzneński | 5 kg (83.3%) | 81 % | 4 |
| Grain | Caraaroma | 0.3 kg (5%) | 78 % | 400 |
| Grain | Jęczmień palony | 0.2 kg (3.3%) | 55 % | 985 |
| Grain | Viking Czekoladowy ciemny | 0.1 kg (1.7%) | 67 % | 900 |
| Grain | płatki jęczmienne | 0.4 kg (6.7%) | 60 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Lunga | 35 g | 55 min | 8.5 % |
| Boil | Fuggles | 45 g | 10 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 150 ml | Fermentis |