

Stout

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **34**
- SRM **22.4**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **15.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.3 kg (83.5%) | 80 % | 5 |
| Grain | Jęczmień palony | 0.2 kg (3.9%) | 55 % | 985 |
| Grain | Weyermann - Carafa I | 0.25 kg (4.9%) | 70 % | 690 |
| Grain | Barley, Flaked | 0.4 kg (7.8%) | 70 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | East Kent Goldings | 50 g | 60 min | 5.1 % |
| Boil | East Kent Goldings | 25 g | 10 min | 5.1 % |
| Boil | Columbus/Tomahawk/Zeus | 20 g | 1 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Fermentis |