

stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **32**
- SRM **32.6**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 3.5 kg (60.9%) | 80 % | 5 |
| Grain | Oats, Flaked | 1 kg (17.4%) | 80 % | 2 |
| Grain | Weyermann - Carafa II | 0.5 kg (8.7%) | 70 % | 1100 |
| Grain | Crystal II 200 | 0.5 kg (8.7%) | 71 % | 200 |
| Grain | Biscuit Malt | 0.25 kg (4.3%) | 79 % | 50 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Willamette | 50 g | 60 min | 5 % |
| Aroma (end of boil) | Willamette | 50 g | 10 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|-------|--------|------------------|
| FM11 Wichrowe Wzgórza | Ale | Slant | 100 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---------------|--------|---------|--------|
| Water Agent | węglan wapnia | 10 g | Mash | 60 min |
| Water Agent | gips | 1 g | Mash | 60 min |
| Fining | whirlfloc | 1 g | Boil | 5 min |