

4 Owsiany stout

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **27**
- SRM **35**
- Style **Oatmeal 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 **5 %/h**
- Boil size **24.1 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 **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|---------------------------|--------------|--------|-----|
| Grain | Biscuit Malt | 1 kg (16%) | 77 % | 50 |
| Grain | Oats, Flaked | 1 kg (16%) | 80 % | 2 |
| Grain | Weyermann - Pale Ale Malt | 3 kg (48%) | 85 % | 7 |
| Adjunct | Milk Sugar (Lactose) | 0.25 kg (4%) | 76.1 % | 0 |
| Grain | Caraaroma | 0.5 kg (8%) | 78 % | 400 |
| Grain | Weyermann - Carafa I | 0.5 kg (8%) | 70 % | 900 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|--------|------------|
| Boil | Marynka | 30 g | 55 min | 8.5 % |
| Whirlpool | Willamette | 30 g | 15 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |