

Stout #1

- Gravity **12.4 BLG**
- ABV **5.3 %**
- IBU **46**
- SRM **40**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **0 %**
- Size with trub loss **14 liter(s)**
- Boil time **30 min**
- Evaporation rate **12 %/h**
- Boil size **15.75 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.85 liter(s)**
- Total mash volume **11.8 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **8.85 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.75 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------|---------|------|
| Grain | Viking Pale Ale Malt | 2.6 kg | 80 % | 15 |
| Grain | Chocolate Wheat (Weyermann) | 0.15 kg | 75.74 % | 2180 |
| Grain | Viking Caramel 600 | 0.1 kg | 68 % | 1600 |
| Grain | Viking Roasted Barley | 0.1 kg | 70 % | 2934 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil | Minstrel | 20 g | 30 min | 7.7 % |
| Boil | Styrian Wolf | 20 g | 15 min | 11.6 % |
| Boil | Minstrel | 10 g | 10 min | 7.7 % |
| Boil | Styrian Wolf | 10 g | 0 min | 11.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------|------|------|--------|---------------|
| SafAle English Ale | Ale | Dry | --- g | DCL/Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|--------------------------|--------|---------|--------|
| Water Agent | Chlorek Wapnia | 6.93 g | Mash | 60 min |
| Water Agent | Sól | 3.26 g | Mash | 60 min |
| Water Agent | Siarczan Magnezu (MgSO4) | 1.75 g | Mash | 60 min |
| Water Agent | Lactic Acid | 1 g | Mash | 60 min |