

Stout

- Gravity **10 BLG**
- ABV **4 %**
- IBU **34**
- SRM **23.4**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **14.3 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **10.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **75C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|----------------|---------|------|
| Grain | Caramunich III | 0.15 kg (4.2%) | 79.7 % | 140 |
| Grain | Chocolate Malt | 0.12 kg (3.4%) | 73.66 % | 1002 |
| Grain | CARA RUBY® | 0.1 kg (2.8%) | 76.64 % | 50 |
| Grain | Caramunich I | 0.1 kg (2.8%) | 77.54 % | 101 |
| Grain | PILSEN (2-Row) | 2.5 kg (70%) | 80.62 % | 3 |
| Grain | MUNICH LIGHT® | 0.3 kg (8.4%) | 79.63 % | 15 |
| Grain | ROASTED BARLEY | 0.15 kg (4.2%) | 64.7 % | 1202 |
| Grain | Crystal - Dark | 0.15 kg (4.2%) | 74.55 % | 220 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Fuggles | 60 g | 60 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|--------|--------|------------|
| English Ale | Ale | Liquid | 100 ml | --- |