

Rye Stout #1

- Gravity **15.9 BLG**
- ABV ---
- IBU **53**
- SRM **52.5**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **100 C**, Time **60 min**
- Temp **38 C**, Time **15 min**
- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **79 C**, Time **5 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **15 min** at **38C**
- Keep mash **45 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **79C**
- Keep mash **60 min** at **100C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt | 1.5 kg (50%) | 80 % | 4 |
| Grain | Casle Malting Whisky Nature | 0.5 kg (16.7%) | 85 % | 4 |
| Grain | Weyermann - Chocolate Rye | 0.25 kg (8.3%) | 78.3 % | 650 |
| Grain | Weyermann - Carafa II | 0.25 kg (8.3%) | 70 % | 837 |
| Grain | Barley, Flaked | 0.25 kg (8.3%) | 70 % | 4 |
| Grain | Black Barley (Roast Barley) | 0.25 kg (8.3%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 15 g | 60 min | 12 % |
| Aroma (end of boil) | Cascade | 10 g | 30 min | 7.2 % |
| Aroma (end of boil) | Cascade | 10 g | 10 min | 7.2 % |

| | | | | |
|---------|--------|------|----------|--------|
| Dry Hop | Simcoe | 20 g | 5 day(s) | 12.3 % |
|---------|--------|------|----------|--------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 6 g | Safale |