

Chocolate Milk Stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **27.2**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **63.5 C**, Time **45 min**
- Temp **71.5 C**, Time **45 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **45 min** at **63.5C**
- Keep mash **45 min** at **71.5C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.5 kg (28.9%) | 80 % | 5 |
| Grain | Buiscuit malt | 1.5 kg (28.9%) | 85 % | 8 |
| Grain | Wheat Malt | 0.7 kg (13.5%) | 85 % | 5 |
| Grain | Barley, Flaked | 0.493 kg (9.5%) | 70 % | 4 |
| Grain | Caramel/Crystal Malt - 120L | 0.5 kg (9.6%) | 72 % | 236 |
| Grain | Chocolate Malt (UK) | 0.5 kg (9.6%) | 73 % | 887 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 25 g | 80 min | 5.1 % |
| Boil | East Kent Goldings | 25 g | 20 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|-----------------------------|------------|-------|------|--------|
| Flavor | lactose | 500 g | Boil | 10 min |
| +1.4 BLG (0,28 BLG na 100g) | | | | |
| Fining | irish moss | 10 g | Boil | 10 min |

Notes

- white malts and flaked barley mashed for 45 mins in 62-65 Celsius
dark malts mashed for the next 45 mins in 70-73 Celsius
mashed-out in 79C

boiled for 60 min + 20 min break (no gas) before cooled down

13.5 BRIX after boiling (13 BLG)

8.8 BRIX after 1 week (5.5 BLG => 4.2 ABV) (19-20 Celsius)

bottled 14.06.2018, carbonation volume => 1.715 (84g per 23l)

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