

#32 Milk Stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **30**
- SRM **49.8**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.1 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **70 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **40 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|-----------------|--------|------|
| Grain | Viking Pale Ale malt | 1.15 kg (36.5%) | 80 % | 5 |
| Grain | Żytni | 0.45 kg (14.3%) | 85 % | 8 |
| Grain | Karmelowy Czerwony | 0.35 kg (11.1%) | 75 % | 59 |
| Grain | Strzegom Karmel 300 | 0.15 kg (4.8%) | 70 % | 299 |
| Grain | Fawcett - Pale Chocolate | 0.1 kg (3.2%) | 71 % | 600 |
| Grain | Weyermann - Carafa I | 0.1 kg (3.2%) | 70 % | 690 |
| Grain | Weyermann - Carafa II | 0.1 kg (3.2%) | 70 % | 837 |
| Grain | Weyermann - Dehusked Carafa III | 0.1 kg (3.2%) | 70 % | 1024 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (6.3%) | 68 % | 1200 |
| Grain | Strzegom pszenica prażona | 0.1 kg (3.2%) | 70 % | 1000 |
| Grain | Płatki owsiane | 0.1 kg (3.2%) | 85 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.25 kg (7.9%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|----------------|-------------|---------------|-------------|-------------------|
| Boil | Magnum | 5 g | 60 min | 12.9 % |
| Boil | Magnum | 10 g | 30 min | 12.9 % |