

Milk stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **31**
- SRM **47**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **11 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **8.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|------|
| Grain | Pilzneński | 1.6 kg (50.8%) | 81 % | 4 |
| Grain | Brown Malt (British Chocolate) | 0.25 kg (7.9%) | 70 % | 175 |
| Grain | Pszeniczny | 0.2 kg (6.3%) | 85 % | 4 |
| Grain | red crystal | 0.2 kg (6.3%) | 70 % | 400 |
| Grain | Pszeniczny Czekoladowy | 0.15 kg (4.8%) | 73 % | 1001 |
| Grain | Strzegom Czekoladowy 1200 | 0.15 kg (4.8%) | 68 % | 1202 |
| Grain | Weyermann - Carafa I | 0.1 kg (3.2%) | 70 % | 800 |
| Grain | Weyermann - Carafa III | 0.1 kg (3.2%) | 70 % | 1300 |
| Sugar | Milk Sugar (Lactose) | 0.4 kg (12.7%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 15 g | 60 min | 11.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| us-05 | Ale | Slant | 80 ml | safeale |