

Milk Stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **30**
- SRM **31**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **24.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.5 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **3 min**

Mash step by step

- Heat up **14.5 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---------------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 1.6 kg (32.7%) | 80 % | 6 |
| Grain | Weyermann - Pale Ale Malt | 1.8 kg (36.7%) | 85 % | 7 |
| Grain | Caraaroma | 0.25 kg (5.1%) | 78 % | 400 |
| Grain | Czekoladowy | 0.4 kg (8.2%) | 60 % | 960 |
| sólód czekoladowy dodawaj przed wygrzewem po próbie jodowej | | | | |
| Grain | Strzegom Karmel 150 | 0.2 kg (4.1%) | 75 % | 150 |
| Grain | Strzegom Karmel 300 | 0.15 kg (3.1%) | 70 % | 299 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (10.2%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | Perle | 40 g | 60 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------|-----|-----|--------|--------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |
|-------------|-----|-----|--------|--------|