

Milk Stout

- Gravity **12.9 BLG**
- ABV ---
- IBU **33**
- SRM **38.1**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **55.4 liter(s)**
- Total mash volume **73.8 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **55.4 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **64.3 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|--------|------|
| Grain | Strzegom Pilzneński | 7.38 kg (36.3%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 7.38 kg (36.3%) | 79 % | 16 |
| Grain | Strzegom Czekoladowy jasny | 0.92 kg (4.5%) | 68 % | 400 |
| Grain | Strzegom Karmel 600 | 0.92 kg (4.5%) | 68 % | 601 |
| Grain | Strzegom Czekoladowy ciemny | 1.85 kg (9.1%) | 68 % | 1200 |
| Sugar | Milk Sugar (Lactose) | 1.91 kg (9.4%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|---------|--------|------------|
| Boil | Marynka | 58.46 g | 60 min | 6.5 % |
| Boil | Magnum | 61.54 g | 60 min | 13.5 % |

Yeasts

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

| | | | | |
|-------------|-----|-------|-----------|--------|
| Safale S-04 | Ale | Slant | 761.91 ml | Safale |
|-------------|-----|-------|-----------|--------|

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------|--------|---------|--------|
| Other | laktoza | 1.91 g | Boil | 10 min |