

Milk Stout

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **32**
- SRM **39.3**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|------|
| Grain | Strzegom Pale Ale | 2 kg (61.5%) | 79 % | 6 |
| Grain | Caramel/Crystal Malt - 10L | 0.25 kg (7.7%) | 75 % | 160 |
| Grain | Karmelowy Jasny 30EBC | 0.35 kg (10.8%) | 75 % | 30 |
| Grain | Płatki owsiane | 0.25 kg (7.7%) | 85 % | 3 |
| Grain | Black, Castlemalting | 0.15 kg (4.6%) | 70 % | 1350 |
| Grain | Jęczmień palony | 0.25 kg (7.7%) | 55 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 12.5 g | 60 min | 4 % |
| Boil | Pacific Gem | 10 g | 40 min | 15.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 6 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 2.5 g | Boil | 15 min |
| Flavor | Laktoza | 400 g | Boil | 40 min |