

milk stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **27**
- SRM **33.7**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.2 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 2 kg (40.8%) | 82 % | 4 |
| Grain | Strzegom Monachijski typ I | 2 kg (40.8%) | 79 % | 16 |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (5.1%) | 68 % | 400 |
| Grain | Strzegom Karmel 600 | 0.25 kg (5.1%) | 68 % | 601 |
| Grain | Jęczmień palony | 0.4 kg (8.2%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us 04 | Ale | Dry | 10 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | laktoza | 500 g | Boil | 10 min |