

milk stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **23**
- SRM **32.6**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------------|----------------|--------|------|
| Grain | Pilzneński optima | 3 kg (54.1%) | 82.6 % | 4 |
| Grain | Monachijski | 1 kg (18%) | 80 % | 15 |
| Grain | Carafa II | 0.2 kg (3.6%) | 70 % | 812 |
| Grain | Caraaroma | 0.2 kg (3.6%) | 75 % | 400 |
| Grain | Jęczmień palony | 0.25 kg (4.5%) | 55 % | 985 |
| Grain | Słód pszeniczny czekoladowy Weyermann | 0.2 kg (3.6%) | 65 % | 1050 |
| Grain | Słód Carahell (R) | 0.2 kg (3.6%) | 75 % | 25 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (9%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 25 g | 60 min | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 150 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 1 g | Boil | 10 min |