

Czekoladowy Milk Stout

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **19**
- SRM **27.4**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **4 %**
- Size with trub loss **23.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **9 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **35 min**
- Temp **75 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **75C**
- Keep mash **10 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 3.8 kg (66.7%) | 80 % | 5 |
| Grain | Biscuit Malt | 0.05 kg (0.9%) | 79 % | 45 |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (7%) | 68 % | 1200 |
| Grain | Strzegom Karmel 600 | 0.1 kg (1.8%) | 68 % | 601 |
| Grain | Château Crystal 150 | 0.1 kg (1.8%) | 78 % | 150 |
| Grain | Pszeniczny | 0.25 kg (4.4%) | 85 % | 4 |
| Adjunct | Płatki Jęczmienne | 0.5 kg (8.8%) | 80 % | 4 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (8.8%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 25 g | 60 min | 5.1 % |
| Aroma (end of boil) | East Kent Goldings | 25 g | 20 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale | Dry | 11.5 g | --- |