

## Milk stout 2

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **23**
- SRM **38.6**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **68 C**, Time **30 min**
- Temp **71 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **13.4 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **71C**
- Keep mash **15 min** at **78C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield  | EBC  |
|-------|---------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt      | 2.5 kg (64.9%) | 80 %   | 5    |
| Grain | Strzegom Czekoladowy 1200 | 0.25 kg (6.5%) | 68 %   | 1202 |
| Grain | Fawcett - Crystal         | 0.2 kg (5.2%)  | 70 %   | 160  |
| Grain | Jęczmień palony           | 0.2 kg (5.2%)  | 55 %   | 985  |
| Grain | Płatki owsiane            | 0.2 kg (5.2%)  | 85 %   | 3    |
| Sugar | Milk Sugar (Lactose)      | 0.5 kg (13%)   | 76.1 % | 0    |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 11 g   | 60 min | 13.5 %     |

### Extras

| Type   | Name  | Amount | Use for | Time   |
|--------|-------|--------|---------|--------|
| Flavor | kakao | 25 g   | Mash    | 20 min |