

# MILK STOUT

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **37**
- SRM **36.9**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield  | EBC  |
|-------|-----------------------------|---------------|--------|------|
| Grain | Strzegom Pale Ale           | 4 kg (54.8%)  | 79 %   | 6    |
| Grain | Strzegom Monachijski typ I  | 1 kg (13.7%)  | 79 %   | 16   |
| Grain | Castlemalting - Special B   | 0.5 kg (6.8%) | 77 %   | 350  |
| Grain | Płatki owsiane              | 0.5 kg (6.8%) | 70 %   | 3    |
| Grain | Fawcett - Chocolate         | 0.5 kg (6.8%) | 71 %   | 1100 |
| Grain | Weyermann - jęczmień palony | 0.1 kg (1.4%) | 65 %   | 1100 |
| Sugar | Milk Sugar (Lactose)        | 0.7 kg (9.6%) | 76.1 % | 0    |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Chinook | 25 g   | 60 min | 12.8 %     |
| Boil    | Perle   | 25 g   | 20 min | 5.1 %      |
| Boil    | Perle   | 25 g   | 7 min  | 5.1 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | ---        |

### Extras

| Type        | Name  | Amount | Use for   | Time     |
|-------------|---|--------|-----------|----------|
| Water Agent | węglan wapnia<br>kreda                        | 10 g   | Mash      | ---      |
| Flavor      | Dr. Oetker Wanilia<br>Bourbon ekstrat<br>30ml | 60 g   | Secondary | 7 day(s) |

### Notes

- Laktoza got. 5 min. Jęczmień palony max 15 min.  
*Aug 28, 2020, 8:02 PM*