

# milk stout

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **44**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

## Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.9 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt           | 5.3 kg (76.3%) | 80 %  | 5    |
| Grain | Jęczmień palony                | 0.5 kg (7.2%)  | 55 %  | 985  |
| Grain | Strzegom<br>Czekoladowy ciemny | 0.5 kg (7.2%)  | 68 %  | 1200 |
| Grain | Strzegom Karmel<br>600         | 0.25 kg (3.6%) | 68 %  | 601  |
| Grain | Płatki owsiane                 | 0.4 kg (5.8%)  | 60 %  | 3    |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 20 g   | 50 min | 15.5 %     |