

# milk stout

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **27**
- SRM **33.7**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt        | 2 kg (40.8%)   | 82 %  | 4   |
| Grain | Strzegom Monachijski typ I | 2 kg (40.8%)   | 79 %  | 16  |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (5.1%) | 68 %  | 400 |
| Grain | Strzegom Karmel 600        | 0.25 kg (5.1%) | 68 %  | 601 |
| Grain | Jęczmień palony            | 0.4 kg (8.2%)  | 55 %  | 985 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 25 g   | 60 min | 10 %       |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us 04 | Ale  | Dry  | 10 g   | ---        |

## Extras

| Type   | Name    | Amount | Use for | Time   |
|--------|---------|--------|---------|--------|
| Flavor | laktoza | 500 g  | Boil    | 10 min |