

# MILK STOUT

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **22.5**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.6 liter(s)**
- Total mash volume **23.5 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt           | 3.5 kg (59.5%) | 80 %  | 5   |
| Grain | Strzegom Monachijski typ I     | 1 kg (17%)     | 79 %  | 16  |
| Grain | Strzegom Karmel 150            | 0.3 kg (5.1%)  | 75 %  | 150 |
| Grain | Brown Malt (British Chocolate) | 0.2 kg (3.4%)  | 70 %  | 128 |
| Grain | Black Barley (Roast Barley)    | 0.178 kg (3%)  | 55 %  | 985 |
| Grain | Carafa I                       | 0.2 kg (3.4%)  | 70 %  | 664 |
| Grain | Płatki owsiane                 | 0.5 kg (8.5%)  | 85 %  | 3   |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | lubelski | 30 g   | 60 min | 2.6 %      |
| Boil    | citra    | 15 g   | 60 min | 12 %       |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |         |       |      |        |
|-------|---------|-------|------|--------|
| Other | laktoza | 500 g | Boil | 15 min |
|-------|---------|-------|------|--------|