

# CHOCOLATE VANILLA MILK STOUT

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **25**
- SRM **28.1**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18.7 liter(s)** of strike water to **75.3C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount         | Yield  | EBC  |
|-------|-------------------|----------------|--------|------|
| Grain | Pilzneński        | 4.1 kg (64.5%) | 81 %   | 4    |
| Sugar | Laktoza           | 0.7 kg (11%)   | 76.1 % | 0    |
| Grain | Płatki pszeniczne | 0.47 kg (7.4%) | 60 %   | 3    |
| Grain | Special X         | 0.28 kg (4.4%) | 70 %   | 350  |
| Grain | Caramunich III    | 0.23 kg (3.6%) | 76 %   | 150  |
| Grain | Czekoladowy       | 0.23 kg (3.6%) | 60 %   | 788  |
| Grain | Karmelowy 50      | 0.22 kg (3.5%) | 75 %   | 59   |
| Grain | Extra black       | 0.13 kg (2%)   | 65 %   | 1400 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 60 min | 8.8 %      |

## Yeasts

| Name                           | Type | Form | Amount | Laboratory      |
|--------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M15 Empire Ale | Ale  | Dry  | 10 g   | Mangrove Jack's |

## Extras

| Type   | Name           | Amount | Use for   | Time     |
|--------|----------------|--------|-----------|----------|
| Flavor | Łuska kakaowca | 150 g  | Secondary | 7 day(s) |
| Flavor | Laska wanilii  | 10 g   | Secondary | 7 day(s) |