

CHOCOLATE VANILLA MILK STOUT

- Gravity **16.6 BLG**
- ABV ---
- 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) |