

# CHOCOLATE VANILLA MILK STOUT

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **25**
- SRM **28.4**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 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 **12.1 liter(s)** of **76C** water or to achieve **25.1 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)