

# Xmass Milk Stout

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **30**
- SRM **30.9**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **14.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.8 kg (70.4%)	80 %	5
Grain	Monachijski	0.7 kg (13%)	80 %	16
Grain	Czekoladowy	0.2 kg (3.7%)	1 %	788
Grain	Strzegom pszenica prażona	0.2 kg (3.7%)	1 %	1000
Sugar	Milk Sugar (Lactose)	0.5 kg (9.3%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	7.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	przyprawy korzenne	15 g	Secondary	7 day(s)