

# Milk Stout

- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **34**
- SRM **45**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **37 liter(s)**
- Trub loss **5 %**
- Size with trub loss **38.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **46.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **48 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **36 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **22.8 liter(s)** of **76C** water or to achieve **46.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (51.9%)	80 %	5
Grain	Monachijski	1.5 kg (11.1%)	80 %	16
Sugar	Milk Sugar (Lactose)	1.5 kg (11.1%)	76.1 %	0
Grain	Żytni	0.7 kg (5.2%)	85 %	8
Grain	Fawcett - Pale Chocolate	0.6 kg (4.4%)	71 %	600
Grain	Weyermann - Dehusked Carafo III	0.6 kg (4.4%)	70 %	1024
Grain	Jęczmień palony	0.6 kg (4.4%)	55 %	985
Grain	Strzegom Karmel 600	0.5 kg (3.7%)	68 %	601
Grain	Pszeniczny	0.5 kg (3.7%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	75 g	60 min	10 %

## Notes

- kakaowiec, kawa, płatki dębowe?

*Apr 25, 2018, 3:54 PM*