

# Imperial Milk Stout

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **30**
- SRM **44.8**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.6 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **23.3 liter(s)** of strike water to **75.7C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.2 kg (24.1%)	80 %	5
Grain	Strzegom Pilzneński	2 kg (21.9%)	80 %	4
Grain	Strzegom Monachijski typ II	1 kg (10.9%)	79 %	22
Grain	Żytni	1 kg (10.9%)	85 %	8
Grain	Płatki owsiane	0.5 kg (5.5%)	85 %	3
Grain	Strzegom Karmel 300	0.6 kg (6.6%)	70 %	299
Grain	Weyermann - Carafa special I	0.25 kg (2.7%)	70 %	900
Grain	pszeniczny czekoladowy	0.25 kg (2.7%)	70 %	1000
Grain	Jęczmień palony	0.25 kg (2.7%)	55 %	985
Grain	Strzegom Czekoladowy 1200	0.16 kg (1.8%)	68 %	1202
Grain	Strzegom Czekoladowy 400	0.15 kg (1.6%)	68 %	400
Grain	Carared	0.28 kg (3.1%)	75 %	39
Sugar	Milk Sugar (Lactose)	0.5 kg (5.5%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	14.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-04	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	węglan wapnia	20 g	Mash	---
Spice	bób tonka	10 g	Secondary	5 day(s)