

# Milk Imperial Stout

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **48**
- SRM **40.6**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.6 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (67.1%)	79 %	6
Sugar	Milk Sugar (Lactose)	0.8 kg (10.7%)	76.1 %	0
Grain	Płatki owsiane	0.4 kg (5.4%)	85 %	3
Grain	Carahell	0.2 kg (2.7%)	77 %	26
Grain	Caraaroma	0.2 kg (2.7%)	78 %	400
Grain	Carafa I Special	0.4 kg (5.4%)	70 %	664
Grain	Carafa III	0.3 kg (4%)	70 %	1034
Grain	Jęczmień palony	0.15 kg (2%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	15.5 %
Boil	Magnum	25 g	60 min	12.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	150 ml	Fermentum Mobile