

# PMS Milk Stout

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **35**
- SRM **32.4**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **24.6 liter(s)**

## Mash information

- Mash efficiency **81 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.1 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.1 kg (65.4%)	79 %	6
Sugar	Milk Sugar (Lactose)	0.5 kg (10.5%)	76.1 %	0
Grain	Carafa I Special	0.2 kg (4.2%)	70 %	664
Grain	Płatki pszeniczne	0.22 kg (4.6%)	85 %	3
Grain	Płatki owsiane	0.18 kg (3.8%)	85 %	3
Grain	Caraaroma	0.2 kg (4.2%)	78 %	400
Grain	Jęczmień palony	0.14 kg (3%)	55 %	985
Grain	Carafa III	0.2 kg (4.2%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	18 g	60 min	11.7 %
Boil	Fuggles	30 g	15 min	6.1 %

## Yeasts

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