

# 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 |