

# Milk Stout Kawowy

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **23**
- SRM **20.7**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

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

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (49.3%) | 80 %   | 5   |
| Grain | Viking Pilsner malt  | 1.5 kg (21.1%) | 82 %   | 4   |
| Grain | Caramunich® typ I    | 0.2 kg (2.8%)  | 73 %   | 80  |
| Grain | Carafa II            | 0.1 kg (1.4%)  | 70 %   | 812 |
| Grain | Jęczmień palony      | 0.3 kg (4.2%)  | 55 %   | 985 |
| Sugar | Milk Sugar (Lactose) | 1.5 kg (21.1%) | 76.1 % | 0   |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 60 min | 10 %       |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 150 ml | Fermentis  |

## Extras

| Type   | Name    | Amount | Use for   | Time     |
|--------|---------|--------|-----------|----------|
| Flavor | Kawa    | 200 g  | Secondary | 1 day(s) |
| Flavor | Laktoza | 1500 g | Boil      | 10 min   |