

# Milk Stout

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **36**
- SRM **32**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński         | 2.3 kg (39.7%) | 80 %  | 4    |
| Grain | Strzegom Monachijski typ I  | 2.2 kg (37.9%) | 79 %  | 16   |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.4%)  | 68 %  | 1200 |
| Grain | Karmelowy Ciemny            | 0.4 kg (6.9%)  | 75 %  | 120  |
| Grain | Strzegom Barwiący           | 0.3 kg (5.2%)  | 68 %  | 1300 |
| Grain | Płatki owsiane błyskawiczne | 0.4 kg (6.9%)  | 85 %  | 3    |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 45 g   | 90 min | 7.8 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Safale     |

## Extras

| Type  | Name    | Amount | Use for | Time   |
|-------|---------|--------|---------|--------|
| Other | laktoza | 0.5 g  | Boil    | 10 min |