

# chocolate milk stout

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **33**
- SRM **31.7**
- Style **Sweet 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Weyermann - Pale Ale Malt   | 3.5 kg (66%)  | 85 %  | 7    |
| Grain | Strzegom Monachijski typ II | 0.5 kg (9.4%) | 79 %  | 22   |
| Grain | Carafa III                  | 0.2 kg (3.8%) | 70 %  | 1034 |
| Grain | Jęczmień palony             | 0.3 kg (5.7%) | 55 %  | 985  |
| Grain | Strzegom Karmel 30          | 0.2 kg (3.8%) | 75 %  | 30   |
| Grain | Strzegom Czekoladowy jasny  | 0.2 kg (3.8%) | 68 %  | 400  |
| Grain | Barley, Flaked              | 0.4 kg (7.5%) | 70 %  | 4    |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Phoenix | 30 g   | 50 min | 11 %       |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |

## Extras

| Type  | Name            | Amount | Use for   | Time      |
|-------|-----------------|--------|-----------|-----------|
| Other | laktoza         | 500 g  | Boil      | 15 min    |
| Spice | ziarno kakaowca | 100 g  | Secondary | 10 day(s) |