

# Chocolate Stout

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **38**
- SRM **40.3**
- Style **American 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 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **75 C**, Time **10 min**
- Temp **60 C**, Time **100 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **66.7C**
- Add grains
- Keep mash **100 min** at **60C**
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC  |
|-------|----------------------|----------------|-------|------|
| Grain | Płatki owsiane       | 0.5 kg (9.8%)  | 60 %  | 3    |
| Grain | Viking Pale Ale malt | 3.5 kg (68.6%) | 80 %  | 5    |
| Grain | Smooth Chocolate     | 0.5 kg (9.8%)  | 73 %  | 494  |
| Grain | Chocolate            | 0.3 kg (5.9%)  | --- % | 1100 |
| Grain | Black (Patent) Malt  | 0.3 kg (5.9%)  | 55 %  | 985  |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 25 g   | 60 min | 13.5 %     |

## Yeasts

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