

# Chocolate Stout

- Gravity **16.2 BLG**
- ABV ---
- IBU **35**
- SRM **40**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.9 liter(s)**
- Total mash volume **33.2 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **24.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount        | Yield | EBC  |
|-------|----------------------------------|---------------|-------|------|
| Grain | Pilzneński                       | 5 kg (60.2%)  | 81 %  | 4    |
| Grain | Brown Malt (British Chocolate)   | 0.8 kg (9.6%) | 70 %  | 128  |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.5 kg (6%)   | 73 %  | 1001 |
| Grain | Weyermann - Carafa I             | 0.3 kg (3.6%) | 70 %  | 690  |
| Grain | Monachijski                      | 1 kg (12%)    | 80 %  | 16   |
| Grain | Strzegom Karmel 150              | 0.5 kg (6%)   | 75 %  | 150  |
| Grain | Jęczmień palony                  | 0.2 kg (2.4%) | 55 %  | 985  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Fuggles | 50 g   | 60 min | 4.5 %      |
| Boil                | Simcoe  | 10 g   | 60 min | 13 %       |
| Boil                | Simcoe  | 12 g   | 12 min | 13 %       |
| Aroma (end of boil) | Simcoe  | 15 g   | 5 min  | 13 %       |

## Yeasts

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

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Spice  | Kakao          | 160 g  | Boil    | 15 min |
| Fining | Mech irlandzki | 5 g    | Boil    | 20 min |