

# Hoppy Chocolate stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **32**
- SRM **39.5**
- Style **Dry 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 **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

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

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 1.4 kg (31.1%) | 80 %  | 5    |
| Grain | Viking Wheat Malt           | 1 kg (22.2%)   | 83 %  | 5    |
| Grain | Viking Pilsner malt         | 0.2 kg (4.4%)  | 82 %  | 4    |
| Grain | Biscuit Malt                | 0.6 kg (13.3%) | 79 %  | 45   |
| Grain | Strzegom Karmel 150         | 0.7 kg (15.6%) | 75 %  | 150  |
| Grain | Strzegom Czekoladowy ciemny | 0.6 kg (13.3%) | 68 %  | 1200 |

## Hops

| Use for   | Name  | Amount | Time   | Alpha acid |
|-----------|-------|--------|--------|------------|
| Boil      | Citra | 20 g   | 30 min | 12 %       |
| Whirlpool | Citra | 30 g   | 15 min | 12 %       |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 10 g   | safale     |