

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 |