

Chocolate Stout

- 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