

Stout #1

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **39**
- SRM **30.7**
- 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 **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **33.6 liter(s)**

Steps

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

Mash step by step

- Heat up **28 liter(s)** of strike water to **71.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **2.9 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	3.8 kg (67.9%)	80 %	5
Grain	Monachijski	1 kg (17.9%)	80 %	16
Grain	Czekoladowy	0.4 kg (7.1%)	60 %	800
Grain	Strzegom Karmel 600	0.4 kg (7.1%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	25 g	20 min	5 %
Boil	Marynka	40 g	60 min	7 %

Yeasts

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