

Stout #1

- Gravity **12.4 BLG**
- ABV **5.3 %**
- IBU **46**
- SRM **40**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **0 %**
- Size with trub loss **14 liter(s)**
- Boil time **30 min**
- Evaporation rate **12 %/h**
- Boil size **15.75 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.85 liter(s)**
- Total mash volume **11.8 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **8.85 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **10 min** at **75C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.75 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale Malt	2.6 kg	80 %	15
Grain	Chocolate Wheat (Weyermann)	0.15 kg	75.74 %	2180
Grain	Viking Caramel 600	0.1 kg	68 %	1600
Grain	Viking Roasted Barley	0.1 kg	70 %	2934

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Minstrel	20 g	30 min	7.7 %
Boil	Styrian Wolf	20 g	15 min	11.6 %
Boil	Minstrel	10 g	10 min	7.7 %
Boil	Styrian Wolf	10 g	0 min	11.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
SafAle English Ale	Ale	Dry	--- g	DCL/Fermentis

Extras

Type	Name	Amount	Use for	Time
Water Agent	Chlorek Wapnia	6.93 g	Mash	60 min
Water Agent	Sól	3.26 g	Mash	60 min
Water Agent	Siarczan Magnezu (MgSO4)	1.75 g	Mash	60 min
Water Agent	Lactic Acid	1 g	Mash	60 min