

# Stout

- Gravity **15.9 BLG**
- ABV ---
- IBU **34**
- SRM **34.9**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **77 C**, Time **20 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **77C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3.5 kg (51.1%)	81 %	6
Grain	Weyermann - Rye Malt	2 kg (29.2%)	85 %	7
Grain	Strzegom Monachijski typ I	0.3 kg (4.4%)	79 %	16
Grain	Rye, Flaked	0.3 kg (4.4%)	78.3 %	4
Grain	Simpsons - Black Malt	0.3 kg (4.4%)	70 %	1084
Grain	Simpsons - Roasted Barley	0.3 kg (4.4%)	70 %	1084
Grain	Simpsons - Crystal Rye	0.15 kg (2.2%)	73 %	177

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sorachi Ace	35 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	12.5 g	Safale