

# Rye Stout #1

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- Gravity **15.9 BLG**
- ABV ---
- IBU **53**
- SRM **52.5**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **100 C**, Time **60 min**
- Temp **38 C**, Time **15 min**
- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **79 C**, Time **5 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **15 min** at **38C**
- Keep mash **45 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **79C**
- Keep mash **60 min** at **100C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1.5 kg (50%)	80 %	4
Grain	Casle Malting Whisky Nature	0.5 kg (16.7%)	85 %	4
Grain	Weyermann - Chocolate Rye	0.25 kg (8.3%)	78.3 %	650
Grain	Weyermann - Carafa II	0.25 kg (8.3%)	70 %	837
Grain	Barley, Flaked	0.25 kg (8.3%)	70 %	4
Grain	Black Barley (Roast Barley)	0.25 kg (8.3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	12 %
Aroma (end of boil)	Cascade	10 g	30 min	7.2 %
Aroma (end of boil)	Cascade	10 g	10 min	7.2 %

Dry Hop	Simcoe	20 g	5 day(s)	12.3 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	6 g	Safale