

# Sour Stout

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **31**
- SRM **35.1**

## 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 **15 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **29 liter(s)**

## Steps

- Temp **70 C**, Time **60 min**

## Mash step by step

- Heat up **22.6 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (62%)	80 %	5
Grain	Pszeniczny	1 kg (15.5%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.85 kg (13.2%)	75 %	30
Grain	Strzegom Czekoladowy 1200	0.3 kg (4.7%)	68 %	1202
Grain	Jęczmień palony	0.3 kg (4.7%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis