

## #2\_American Stout

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **41.3**
- Style **American 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 **15 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **18.2 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **12.3 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	2.7 kg (51.9%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (19.2%)	79 %	16
Grain	Simpsons - Coffee Malt	0.5 kg (9.6%)	74 %	296
Grain	Strzegom Karmel 300	0.3 kg (5.8%)	70 %	299
Grain	Jęczmień palony	0.45 kg (8.7%)	55 %	985
Grain	Chocolate Malt (US)	0.25 kg (4.8%)	60 %	690

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Aroma (end of boil)	Simcoe	20 g	15 min	13.2 %
Whirlpool	Simcoe	15 g	0 min	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's
--------------------------------------	-----	-----	------	-----------------