

## american stout

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **60**
- SRM **54.9**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.5 kg (59.5%)	81 %	6
Grain	Płatki owsiane	0.5 kg (11.9%)	60 %	3
Grain	Pszeniczny	0.3 kg (7.1%)	85 %	4
Grain	Caraaroma	0.2 kg (4.8%)	78 %	400
Grain	Viking Czekoladowy ciemny	0.2 kg (4.8%)	67 %	1000
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (4.8%)	73 %	1001
Grain	Jęczmień palony	0.1 kg (2.4%)	55 %	985
Grain	Carafa special III	0.2 kg (4.8%)	70 %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10 %
Boil	Centennial	25 g	15 min	10 %
Boil	Simcoe cryo	10 g	15 min	23 %
Aroma (end of boil)	Centennial	25 g	0 min	10 %

Aroma (end of boil)	Simcoe cryo	15 g	0 min	23 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

## Notes

- słody palone po godzinie zacierania  
*Jan 8, 2024, 10:49 AM*