

## american stout

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **47**
- SRM **38.3**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **22.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (81.1%)	80 %	5
Grain	Słód Caramel Sweet	0.5 kg (6.8%)	80 %	60
Grain	Karmelowy Jasny 30EBC	0.2 kg (2.7%)	75 %	30
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.1%)	68 %	1200
Grain	Jęczmień palony	0.4 kg (5.4%)	40 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %
Boil	Chinook	25 g	20 min	11.3 %
Boil	Simcoe	25 g	10 min	13.1 %
Dry Hop	Chinook	25 g	5 day(s)	11.3 %
Dry Hop	Simcoe	25 g	5 day(s)	13.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	200 ml	---