

## #19 American Stout

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- Gravity **18.2 BLG**
- ABV ---
- IBU **58**
- SRM **45.6**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **27.2 liter(s)**

### Steps

- Temp **66 C**, Time **90 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **19.4 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **20 min** at **72C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5.25 kg (67.6%)	85 %	7
Grain	Strzegom Monachijski typ I	0.87 kg (11.2%)	79 %	16
Grain	Caraaroma	0.37 kg (4.8%)	78 %	400
Grain	Weyermann - Carafa I	0.37 kg (4.8%)	70 %	690
Grain	Jęczmień palony	0.31 kg (4%)	55 %	985
Grain	Płatki owsiane	0.6 kg (7.7%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	38 g	60 min	15.5 %
Boil	Equinox	35 g	10 min	13.1 %
Aroma (end of boil)	Equinox	40 g	0 min	13.1 %
Dry Hop	Equinox	50 g	4 day(s)	13.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	200 ml	Fermentum Mobile
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