

## 17# American stout

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **41**
- SRM **29.1**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **70 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **70 min** at **70C**
- Keep mash **10 min** at **76C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.85 kg (61.6%)	80 %	5
Grain	Monachijski	1.2 kg (19.2%)	80 %	16
Grain	Caramel/Crystal Malt - 120L	0.3 kg (4.8%)	72 %	236
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.2%)	68 %	1200
Grain	Strzegom pszenica prażona	0.2 kg (3.2%)	70 %	1000
Grain	Płatki pszenne	0.25 kg (4%)	85 %	3
Grain	Płatki owsiane	0.25 kg (4%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	30 min	15.5 %
Aroma (end of boil)	Cascade	50 g	1 min	6 %
Dry Hop	Mosaic	50 g	3 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis