

American Stout

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **66**
- SRM **34.6**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **2.7 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (47.8%)	80 %	5
Grain	Viking Pilsner malt	1 kg (19.1%)	82 %	4
Grain	Pszeniczny	0.5 kg (9.6%)	85 %	4
Grain	Strzegom Wiedeński	0.5 kg (9.6%)	79 %	10
Grain	Strzegom Karmel 300	0.2 kg (3.8%)	70 %	299
Grain	Strzegom Czekoladowy jasny	0.2 kg (3.8%)	68 %	400
Grain	Weyermann - Carafa II	0.333 kg (6.4%)	70 %	837

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Azacca	20 g	10 min	14 %
Aroma (end of boil)	Simcoe	20 g	10 min	13.2 %
Aroma (end of boil)	Strata	20 g	10 min	13.6 %
Boil	Amarillo	20 g	40 min	9.5 %

Yeasts

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