

American Stout

- Gravity **17.1 BLG**
- ABV ---
- IBU **45**
- SRM **40**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **24.2 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **18.1 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4.5 kg (69.8%)	78 %	20
Grain	Pszeniczny	0.2 kg (3.1%)	85 %	4
Grain	Strzegom Karmel 150	0.45 kg (7%)	75 %	150
Grain	Carafa II	0.2 kg (3.1%)	70 %	812
Grain	Carafa	0.1 kg (1.6%)	70 %	664
Grain	Jęczmień palony	0.5 kg (7.8%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.6%)	68 %	400
Adjunct	płatki pszenne	0.2 kg (3.1%)	--- %	---
Adjunct	płatki owsiane	0.2 kg (3.1%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	20 g	60 min	9.5 %
Boil	Amarillo	20 g	30 min	9.5 %
Boil	Mosaic	25 g	15 min	10 %

Dry Hop	Mosaic	45 g	11 day(s)	10 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	11.5 g	Safale