

American Stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **50**
- SRM **35.9**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **18.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **100 C**, Time **65 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **65 min** at **100C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **18.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	1.5 kg (37.4%)	79 %	10
Grain	Viking Pale Ale malt	0.8 kg (20%)	80 %	5
Grain	Monachijski	0.46 kg (11.5%)	80 %	16
Grain	Brown Malt (British Chocolate)	0.4 kg (10%)	70 %	128
Grain	Caramel/Crystal Malt - 120L	0.15 kg (3.7%)	72 %	236
Grain	Karmelowy Jasny 30EBC	0.15 kg (3.7%)	75 %	30
Grain	Fawcett - Pale Chocolate	0.2 kg (5%)	71 %	600
Grain	Czekoladowy	0.2 kg (5%)	60 %	788
Grain	Jęczmień palony	0.15 kg (3.7%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Calypso	8 g	60 min	14 %
Boil	Calypso	10 g	20 min	14 %
Aroma (end of boil)	Calypso	15 g	5 min	14 %

Whirlpool	Calypso	25 g	20 min	14 %
Dry Hop	Calypso	42 g	3 day(s)	14 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	150 ml	Fermentum Mobile