

American stout

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **39**
- SRM **46.5**
- 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 **12 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **22.6 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.4 kg (51.1%)	80 %	7
Grain	Monachijski	1.25 kg (18.8%)	80 %	16
Grain	Simpsons - Coffee Malt	0.65 kg (9.8%)	74 %	296
Grain	Strzegom Karmel 300	0.3 kg (4.5%)	70 %	299
Grain	Czekoladowy	0.35 kg (5.3%)	60 %	788
Grain	Jęczmień palony	0.55 kg (8.3%)	55 %	985
Grain	Acid Malt	0.15 kg (2.3%)	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Aroma (end of boil)	Simcoe	25 g	15 min	13.2 %
Aroma (end of boil)	Simcoe	10 g	5 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us 05	Ale	Slant	200 ml	---