

american stout

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **47**
- SRM **43.8**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.9 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **76C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (69.6%)	85 %	7
Grain	Caraaroma	0.5 kg (8.7%)	78 %	400
Grain	Jęczmień palony	0.25 kg (4.3%)	55 %	985
Grain	Weyermann - Carafa III	0.5 kg (8.7%)	70 %	1024
Grain	Płatki owsiane	0.5 kg (8.7%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Cascade	50 g	0 min	6.9 %
Boil	lunga	50 g	40 min	11 %
Aroma (end of boil)	Simcoe	50 g	0 min	11.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis