

## american stout

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **40**
- SRM **33.3**

### 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 **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **22.3 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **16.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4.2 kg (75.4%)	85 %	7
Grain	Jęczmień palony	0.37 kg (6.6%)	55 %	900
Grain	Strzegom Czekoladowy ciemny	0.25 kg (4.5%)	68 %	1200
Grain	Strzegom Karmel 150	0.25 kg (4.5%)	75 %	150
Grain	Weyermann pszeniczny jasny	0.5 kg (9%)	80 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	45 min	11.3 %
Boil	Simcoe	15 g	15 min	13.2 %
Boil	Chinook	15 g	5 min	11.3 %
Aroma (end of boil)	Simcoe	25 g	0 min	13.2 %
Aroma (end of boil)	Equinox	25 g	0 min	13.1 %
Dry Hop	Chinook	10 g	3 day(s)	11.3 %
Dry Hop	Equinox	25 g	3 day(s)	13.1 %
Dry Hop	Simcoe	60 g	2 day(s)	13.2 %