

# stout

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **38**
- SRM **32.2**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **40.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.9 liter(s)**
- Total mash volume **41.2 liter(s)**

## Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **2 min**

## Mash step by step

- Heat up **30.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **19.9 liter(s)** of **76C** water or to achieve **40.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (48.5%)	80 %	5
Grain	Strzegom Monachijski typ I	2 kg (19.4%)	79 %	16
Grain	Strzegom Monachijski typ II	2 kg (19.4%)	79 %	22
Grain	Caraaroma	0.8 kg (7.8%)	78 %	400
Grain	Strzegom Czekoladowy ciemny	0.5 kg (4.9%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	40 g	60 min	12 %
Boil	Citra	30 g	10 min	12 %
Boil	Citra	20 g	2 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM 52	Ale	Liquid	48 ml	Fermentum Mobile