

# stout

- Gravity **14.7 BLG**
- ABV ---
- IBU **33**
- SRM **39.8**
- 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 **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **65 C**, Time **120 min**

## Mash step by step

- Heat up **16.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **120 min** at **65C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (74.6%)	81 %	4
Grain	Monachijski	0.4 kg (7.5%)	80 %	16
Grain	Grodziski pszeniczny wędzony dębem	0.2 kg (3.7%)	80 %	3
Grain	Pszeniczny	0.2 kg (3.7%)	85 %	4
Grain	Caraaroma	0.2 kg (3.7%)	78 %	400
Grain	Strzegom pszenica prażona	0.2 kg (3.7%)	70 %	1000
Grain	Strzegom Czekoladowy ciemny	0.16 kg (3%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	15 min	10 %
Boil	Cascade	20 g	10 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11.5 g	---