

# Stout

- Gravity **12.9 BLG**
- ABV ---
- IBU **45**
- SRM **28.8**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (75.5%)	--- %	---
Grain	Monachijski	0.3 kg (5.7%)	80 %	16
Grain	Strzegom pszenica prażona	0.2 kg (3.8%)	70 %	1000
Grain	Słód czekoladowy	0.2 kg (3.8%)	68 %	1200
Grain	Słód wędzony	0.2 kg (3.8%)	80 %	3
Grain	Strzegom Pszeniczny	0.2 kg (3.8%)	81 %	6
Grain	Caraaroma	0.2 kg (3.8%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Chinook	10 g	60 min	13 %
Boil	Lublin (Lubelski)	40 g	10 min	4.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale