

# stout 2021

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **45**
- SRM **27.2**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **15 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **77C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Czekoladowy jasny	0.25 kg (4.7%)	68 %	400
Grain	Strzegom Karmel 300	1 kg (18.7%)	70 %	299
Grain	Viking Pale Ale malt	4 kg (74.8%)	80 %	5
Grain	Strzegom Barwiący	0.1 kg (1.9%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Lublin (Lubelski)	50 g	15 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis