

# Stout

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **27**
- SRM **24.3**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **8 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **8 %/h**
- Boil size **26.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.4 kg (74.7%)	85 %	5
Grain	Strzegom Czekoladowy jasny	0.2 kg (4.4%)	68 %	400
Grain	Jęczmień palony	0.35 kg (7.7%)	55 %	985
Grain	Płatki Jęczmienne	0.6 kg (13.2%)	80 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	35 g	60 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale