

# Stout

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **28**
- SRM **37.4**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **38.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **4.5 liter(s)**
- Total mash volume **6 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **4.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **35.2 liter(s)** of **76C** water or to achieve **38.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Golden ale	1.5 kg (30.6%)	80 %	14
Liquid Extract	Gozdawa ekstrakt słodowy ciemny	1.7 kg (34.7%)	80 %	650
Liquid Extract	Gozdawa ekstrakt słodowy pszeniczny	1.7 kg (34.7%)	80 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	20 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	10 min	4 %
Boil	Eureka!	15 g	40 min	18 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	23 g	Fermentis