

# stout

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **28**
- SRM **33.9**
- Style **Sweet 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (69.2%)	80 %	5
Grain	Oats, Flaked	0.5 kg (7.7%)	80 %	2
Grain	Strzegom Karmel 300	0.5 kg (7.7%)	70 %	299
Grain	Carafa III	0.5 kg (7.7%)	70 %	1034
Sugar	Milk Sugar (Lactose)	0.5 kg (7.7%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

## Extras

Type	Name	Amount	Use for	Time
Flavor	Vanilla Beans	20 g	Secondary	5 day(s)
Spice	Cinnamon	15 g	Secondary	5 day(s)