

# stout dla miska

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **28**
- SRM **28.2**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4 kg (71.4%)	80 %	7
Grain	Munich Malt	1 kg (17.9%)	80 %	18
Grain	Briess - Chocolate Malt	0.3 kg (5.4%)	60 %	690
Grain	Black Barley (Roast Barley)	0.3 kg (5.4%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	30 g	60 min	7 %
Boil	East Kent Goldings	20 g	15 min	6.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	200 ml	safale