

## 38# mild stout

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- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **18**
- SRM **22.2**
- Style **Dry 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 **24.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.8 liter(s)**
- Total mash volume **15.8 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **11.8 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **15 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mild Malt	3 kg (76.1%)	80 %	8
Grain	Caramel/Crystal Malt - 120L	0.5 kg (12.7%)	72 %	236
Grain	Płatki owsiane	0.2 kg (5.1%)	60 %	3
Grain	Strzegom Czekoladowy ciemny	0.09 kg (2.3%)	68 %	1200
Grain	Briess - Chocolate Malt	0.15 kg (3.8%)	60 %	690

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	30 g	60 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis