

## stout

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- Gravity **14 BLG**
- ABV ---
- IBU **31**
- SRM **35.7**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.4 liter(s)**

### Steps

- Temp **68 C**, Time **30 min**
- Temp **71 C**, Time **30 min**

### Mash step by step

- Heat up **7.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **71C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (76.9%)	80 %	4
Grain	Słód Crystal 160	0.15 kg (5.8%)	73.5 %	160
Grain	Weyermann - Carafa I	0.05 kg (1.9%)	70 %	690
Grain	Słód Chocolate	0.1 kg (3.8%)	75 %	90
Grain	Weyermann pszeniczny jasny	0.2 kg (7.7%)	82 %	6
Grain	castlemelting black	0.1 kg (3.8%)	72 %	1350

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Dry Hop	Marynka	15 g	4 day(s)	10 %
Dry Hop	Lublin (Lubelski)	15 g	4 day(s)	4 %
Boil	Lublin (Lubelski)	10 g	60 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M03 UK Dark Ale	Ale	Dry	4 g	mongrow jack

## Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	200 g	Bottling	---