

## christmas stout

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- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **41**
- SRM **43.8**
- Style **Oatmeal 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 **24.9 liter(s)**
- Total mash volume **33.2 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **24.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.7 kg (56.6%)	80 %	7
Grain	Pszeniczny	1 kg (12%)	85 %	4
Grain	Żytni	0.5 kg (6%)	85 %	8
Grain	Płatki owsiane	1 kg (12%)	85 %	3
Grain	Strzegom Czekoladowy jasny	0.2 kg (2.4%)	68 %	400
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (6%)	73 %	1001
Grain	Jęczmień palony	0.3 kg (3.6%)	55 %	985
Grain	Carafa II	0.1 kg (1.2%)	70 %	812

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	11.5 %
Boil	Marynka	30 g	30 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale