

# Christmas Stout

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **30**
- SRM **36.4**
- 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 **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.5 kg (48.1%)	81 %	6
Grain	Special X	1 kg (19.2%)	79 %	300
Grain	Oats, Flaked	1.2 kg (23.1%)	80 %	2
Grain	Czekoladowy	0.5 kg (9.6%)	60 %	900
Grain	Weyermann - Dehusked Carafa I	0 kg	70 %	690

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	24 g	60 min	11.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	4 g	Boil	15 min

Other	Czekoladowyd	500 g	Mash	15 min
Other	Carafa special I	250 g	Mash	15 min
Spice	cynamon	10 g	Boil	15 min
Spice	Anyż	1 g	Boil	15 min
Spice	goździki	1 g	Boil	15 min
Spice	skórka pomarańczy	11 g	Boil	5 min

## Notes

- cynamon - 3 sztuki  
anyż - gwiazdka x 2  
goździki - 22 sztuk  
*Nov 25, 2020, 11:28 PM*