

# Christmas Spiced Stout Modyfikowany

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **20**
- SRM **3**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **1 %**
- Size with trub loss **24.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **1 %/h**
- Boil size **25 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (67.8%)	81 %	4
Grain	Karmelowy 150	1 kg (16.9%)	--- %	---
Grain	Wiedeński	0.5 kg (8.5%)	--- %	---
Grain	Czekoladowy jasny	0.2 kg (3.4%)	--- %	---
Grain	Barwiący	0.2 kg (3.4%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	60 min	5.1 %
Aroma (end of boil)	East Kent Goldings	30 g	10 min	5.1 %
Whirlpool	East Kent Goldings	30 g	0 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	Skórka z pomarańczy	50 g	Boil	15 min
Spice	Kardamon	5 g	Boil	15 min
Flavor	Suszone śliwki	350 g	Boil	10 min
Flavor	Miód gryczany	200 g	Boil	15 min
Spice	Imbir	25 g	Boil	10 min
Spice	Goździki	2 g	Boil	5 min