

## Christmas Ale #2

- Gravity **18.2 BLG**
- ABV ---
- IBU **31**
- SRM **24.1**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **16.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.9 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 **67 C**, Time **70 min**
- Temp **66 C**, Time **10 min**

### Mash step by step

- Heat up **18.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **10 min** at **66C**
- Keep mash **70 min** at **67C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **20.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński CastleMalting	3 kg (52.6%)	81 %	3.5
Grain	Słód Pszoniczny Heidelberg	1 kg (17.5%)	82 %	3.5
Grain	Płatki Owsiane	0.5 kg (8.8%)	85 %	3
Grain	Słód Karmelowy Strzegom	0.3 kg (5.3%)	75 %	150
Grain	Słód Karmelowy Strzegom	0.2 kg (3.5%)	70 %	300
Grain	Jęczmień palony	0.12 kg (2.1%)	55 %	985
Dodany po 70 min zacierania				
Grain	Strzegom Barwiący	0.08 kg (1.4%)	68 %	1300
Dodany po 70 min zacierania				
Sugar	Cukier	0.5 kg (8.8%)	100 %	0
Dodany na ostatnie 10 minut gotowania				

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8.8 %
Boil	Lublin (Lubelski)	20 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale T-58	Ale	Dry	23 g	---

## Extras

Type	Name	Amount	Use for	Time
Spice	Cukier waniliowy	50 g	Boil	10 min
Spice	Śliwki suszone posiekane	200 g	Boil	10 min
Spice	Gałka muskatołowa	5 g	Boil	10 min
Spice	Skórka z 2 dużych pomarańczy	0 g	Boil	10 min
Spice	Przyprawa do piernika KAMIS	20 g	Boil	10 min
Spice	Goździki 6szt	0 g	Boil	10 min