

## Christmas Ale (No. 5)

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **16**
- SRM **28.8**
- Style **Christmas/Winter Specialty Spiced Beer**

### 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **44 C**, Time **15 min**
- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (66.7%)	82 %	4
Grain	Strzegom Monachijski typ I	1 kg (16.7%)	79 %	16
Grain	Strzegom Karmel 150	0.2 kg (3.3%)	75 %	150
Grain	Strzegom Karmel 300	0.2 kg (3.3%)	70 %	299
Grain	Strzegom Czekoladowy 400	0.4 kg (6.7%)	68 %	400
Grain	Strzegom Barwiący	0.2 kg (3.3%)	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	30 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale T-58	Ale	Dry	11.5 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Spice	Przyprawa do piernika	100 g	Boil	10 min