

# xmas ale

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- Gravity **19.3 BLG**
- ABV ---
- IBU **34**
- SRM **42.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **21.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **40 C**, Time **30 min**
- Temp **64 C**, Time **30 min**
- Temp **74 C**, Time **20 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **30 min** at **40C**
- Keep mash **30 min** at **64C**
- Keep mash **20 min** at **74C**
- Keep mash **10 min** at **77C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **21.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (47.6%)	80 %	4
Grain	Pszeniczny	1 kg (15.9%)	85 %	4
Grain	Płatki owsiane	0.4 kg (6.3%)	85 %	3
Grain	Strzegom Karmel 150	1 kg (15.9%)	75 %	150
Grain	Strzegom Karmel 600	0.2 kg (3.2%)	68 %	601
Grain	Jęczmień palony	0.12 kg (1.9%)	55 %	985
Grain	Barwiący	0.08 kg (1.3%)	55 %	985
Sugar	cukier	0.5 kg (7.9%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	9 %
Boil	East Kent Goldings	30 g	10 min	6 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
T-58	Ale	Dry	12 g	---