

# Xmas Ale

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- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **24**
- SRM **26.5**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **13.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **3 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Sugar	Milk Sugar (Lactose)	0.25 kg (6.5%)	76.1 %	0
Grain	Wheat, Flaked	0.75 kg (19.5%)	77 %	4
Grain	Brown Malt (British Chocolate)	0.25 kg (6.5%)	70 %	128
Grain	Abbey Castle	0.3 kg (7.8%)	80 %	45
Grain	Fawcett - Pale Chocolate	0.3 kg (7.8%)	71 %	600
Grain	Viking Pale Ale malt	2 kg (51.9%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	8.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Przyprawa do piernika	25 g	Mash	60 min
Flavor	Tonka macerowana w red stagu	10 g	Secondary	2 day(s)