

# Xmas Ale

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **16**
- SRM **21.3**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **13.2 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **10.1 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	2.5 kg (80.6%)	81 %	6
Grain	Caramel/Crystal Malt - 80L	0.5 kg (16.1%)	74 %	158
Grain	Czekoladowy	0.1 kg (3.2%)	60 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	10.53 g	60 min	5.1 %
Boil	East Kent Goldings	10.53 g	15 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	5.79 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Spice	Laski cynamonu	2.11 g	Boil	10 min
Spice	Wanilia	0.53 g	Boil	10 min

Spice	Ziele angielskie	3.68 g	Boil	10 min
Spice	Gałka muszkatołowa	0.53 g	Boil	10 min
Spice	Ziarna kolendry	4.21 g	Boil	10 min
Spice	Kardamon	1 g	Boil	10 min