

# Xmas Ale

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- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **23**
- SRM **33.6**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **20.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **20.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (66.7%)	80 %	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	60 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
T-58	Ale	Dry	11.5 g	Safbrew

## Extras

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