

# Xmass Ale

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **21**
- SRM **5.5**
- 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 **10 %/h**
- Boil size **22.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **50 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **50 min** at **72C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	3 kg (52.2%)	81 %	4
Grain	Pszeniczny	1.5 kg (26.1%)	85 %	4
Grain	Monachijski	0.5 kg (8.7%)	80 %	16
Grain	Oats, Flaked	0.3 kg (5.2%)	80 %	2
Grain	Abbey Malt Weyermann	0.2 kg (3.5%)	75 %	45
Sugar	Milk Sugar (Lactose)	0.25 kg (4.3%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	20 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	goździki/cynamon	5 g	Boil	15 min

Flavor	do połowy - pulpa blood orange	500 g	Secondary	10 day(s)
Flavor	do połowy - ...	200 g	Secondary	10 day(s)
Water Agent	gips	4 g	Mash	60 min