

# Christmas ALE

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **27**
- SRM **32.8**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **28.6 liter(s)**

## Steps

- Temp **50 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (51%)	81 %	4
Grain	Biscuit Malt	0.5 kg (6.4%)	79 %	45
Grain	Strzegom Karmel 300	0.5 kg (6.4%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.5 kg (6.4%)	68 %	1200
Grain	Pszeniczny	0.7 kg (8.9%)	85 %	4
Grain	Płatki owsiane	0.35 kg (4.5%)	60 %	3
Grain	Monachijski	0.6 kg (7.6%)	80 %	16
Liquid Extract	Miód Gryczany (Buckwheat Honey)	0.3 kg (3.8%)	70 %	40
Sugar	Brown Sugar, Light	0.4 kg (5.1%)	100 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %

Boil	Saaz (Czech Republic)	10 g	15 min	4.5 %
Boil	Saaz (Czech Republic)	10 g	10 min	4.5 %
Boil	Saaz (Czech Republic)	10 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	10 g	---

### Extras

Type	Name	Amount	Use for	Time
Spice	Goździki 10szt	10 g	Boil	20 min
Spice	Imbir	10 g	Boil	20 min
Spice	Cynamon	10 g	Boil	20 min
Spice	Gałka Muszkatołowa	10 g	Boil	20 min
Spice	Kakao	10 g	Boil	20 min
Spice	Skórka pomarańczy	20 g	Boil	20 min
Spice	Ostra papryczka 2 szt mini	10 g	Boil	20 min