

# Christmas Ale

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- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **32**
- SRM **23.1**
- Style **Belgian Dark Strong Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **31 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.9 liter(s)**
- Total mash volume **41.2 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **30.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **31 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	7 kg (61.7%)	80 %	4
Grain	Strzegom Wiedeński	1.5 kg (13.2%)	79 %	10
Grain	Special B Castle	0.6 kg (5.3%)	70 %	300
Grain	Caramunich® typ I	0.5 kg (4.4%)	73 %	80
Grain	Biscuit Malt	0.5 kg (4.4%)	79 %	45
Grain	Abbey Castle	0.2 kg (1.8%)	80 %	45
Sugar	Syrop kandyzowany ciemny	1.05 kg (9.3%)	50 %	180

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	55 g	60 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Slant	200 ml	Fermentum Mobile

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### Extras

Type	Name	Amount	Use for	Time
Spice	Kora cynamonu	24 g	Boil	10 min
Spice	Gałka muskatołowa (1 sztuka)	4 g	Boil	10 min
Spice	Goździki (8 sztuk)	1 g	Boil	10 min
Spice	Świeży imbir	37 g	Boil	10 min
Flavor	Zest z słodkich pomarańczy	44 g	Boil	10 min