

# Christmas Ale 2019

---

- Gravity **19.1 BLG**
- ABV **8.3 %**
- IBU **33**
- SRM **27**
- Style **Specialty Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **64 C**, Time **15 min**
- Temp **68 C**, Time **30 min**
- Temp **70 C**, Time **15 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **15 min** at **70C**
- Sparge using **5.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (70%)	80 %	5
Grain	Carafa II	0.2 kg (4%)	70 %	812
Grain	Monachijski	0.7 kg (14%)	80 %	16
Grain	Płatki owsiane	0.5 kg (10%)	85 %	3
Grain	Strzegom pszenica prażona	0.1 kg (2%)	70 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	15 g	60 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM25 Klasztorna medytacja	Ale	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Spice	cynamon	5 g	Boil	10 min
Spice	goździki	5 g	Boil	10 min
Spice	galka muszkatołowa	5 g	Boil	10 min