

# Christmas ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **38**
- SRM **30.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3.4 kg (59.6%)	80 %	8
Grain	Monachijski	1 kg (17.5%)	80 %	16
Grain	Czekoladowy	0.5 kg (8.8%)	60 %	788
Grain	Caraaroma	0.3 kg (5.3%)	78 %	400
Grain	Biscuit Malt	0.5 kg (8.8%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	20 g	60 min	15 %
Boil	Lomik	20 g	10 min	3.8 %
Boil	Kazbek	40 g	5 min	4.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM53 Voss kveik	Ale	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	30 g	Boil	15 min
Flavor	Imbir	30 g	Boil	60 min
Spice	Anyż	5 g	Boil	10 min
Spice	Kardamon	10 g	Boil	10 min
Spice	Goździki	10 g	Boil	10 min
Other	Skórka z 2 cytryn	10 g	Boil	10 min
Other	Skórka z 3 pomarańczy	20 g	Boil	10 min
Spice	Gałka muskatołowa	10 g	Boil	10 min
Spice	Przyprawa do piernika	20 g	Boil	10 min