

# Christmas 2021

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **16**
- SRM **29.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.4 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **20.6 liter(s)** of strike water to **76.5C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	golden ale	3.5 kg (37.4%)	70 %	12
Grain	Viking Pale Ale malt	3 kg (32.1%)	80 %	5
Grain	Pilzneński	1.2 kg (12.8%)	81 %	4
Grain	Płatki owsiane	0.6 kg (6.4%)	60 %	3
Grain	Caraaroma	0.4 kg (4.3%)	78 %	400
Grain	cookie	0.2 kg (2.1%)	70 %	50
Grain	Strzegom pszenica prażona	0.25 kg (2.7%)	70 %	1000
Grain	Carafa II	0.17 kg (1.8%)	70 %	812
Grain	Jęczmień palony	0.04 kg (0.4%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	40 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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WLP530 - Abbey Ale Yeast	Ale	Slant	500 ml	White Labs
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### Extras

Type	Name	Amount	Use for	Time
Spice	przyprawa do piernika	2 g	Boil	5 min
Spice	goździki	1 g	Boil	3 min
Spice	cynamon	5 g	Boil	3 min
Spice	gałka muszkatołowa	5 g	Boil	3 min
Spice	przyprawa do piernika	3 g	Boil	3 min