

## Bożonarodzeniowe (Christmas Ale)

- Gravity **20.9 BLG**
- ABV **9.3 %**
- IBU **30**
- SRM **35.9**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **0 %**
- Size with trub loss **27 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **29.3 liter(s)**

### Steps

- Temp **45 C**, Time **10 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **20.4 liter(s)** of strike water to **50.4C**
- Add grains
- Keep mash **10 min** at **45C**
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (51.4%)	80 %	5
Grain	Strzegom Pszeniczny	1.5 kg (15.4%)	81 %	6
Grain	Płatki owsiane	0.6 kg (6.2%)	85 %	3
Grain	Strzegom Bursztynowy	1 kg (10.3%)	70 %	49
Grain	Weyermann - Carared	0.1 kg (1%)	75 %	45
Grain	Słód Caramunich Typ II Weyermann	0.07 kg (0.7%)	73 %	120
Grain	Strzegom pszenica prażona	0.25 kg (2.6%)	70 %	1000
Grain	Strzegom Barwiący	0.1 kg (1%)	68 %	1300
Sugar	cukier śliwkowy	0.36 kg (3.7%)	--- %	---
Grain	Fawcett - Pale Chocolate	0.25 kg (2.6%)	71 %	600
Sugar	Muscovado Dark	0.5 kg (5.1%)	90 %	500

### Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	iunga	45 g	60 min	10 %
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### Extras

Type	Name	Amount	Use for	Time
Spice	cukier wanilinowy	32 g	Boil	10 min
Spice	cynamon	9 g	Boil	10 min
Spice	gałka muskatołowa	7 g	Boil	10 min
Flavor	śliwki suszone wędzone	0.5 g	Boil	10 min
Spice	zest pomarańczy	50 g	Boil	10 min
Spice	goździki sztuki	20 g	Boil	10 min
Water Agent	gips	1 g	Boil	10 min