

Christmas Ale

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **24**
- SRM **25.3**
- Style **Christmas/Winter Specialty Spiced 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **14.3 liter(s)**

Steps

- Temp **68 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **10.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **45 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.2 kg (58.4%)	82 %	4
Grain	Viking Munich Malt	0.65 kg (17.2%)	78 %	18
Grain	Płatki owsiane	0.25 kg (6.6%)	85 %	3
Grain	Strzegom Karmel 150	0.2 kg (5.3%)	75 %	150
Grain	Strzegom Karmel 300	0.15 kg (4%)	70 %	299
Grain	Jęczmień palony	0.07 kg (1.9%)	55 %	1100
Grain	Strzegom Barwiący	0.05 kg (1.3%)	68 %	1300
Sugar	Candi Sugar, Amber	0.2 kg (5.3%)	78.3 %	148

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	7.4 %
Aroma (end of boil)	Marynka	15 g	10 min	7.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	11.5 g	Safale
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Extras

Type	Name	Amount	Use for	Time
Spice	Cukier wanilinowy	20 g	Boil	10 min
Spice	Cynamon Mielony	5 g	Boil	10 min
Spice	Gałka muszkatołowa	4 g	Boil	10 min
Spice	Śliwki suszone	130 g	Boil	10 min
Spice	Skórka z 3 pomarańczy	0 g	Boil	10 min
Spice	Goździki - 6 sztuk	0 g	Boil	10 min
Spice	Imbir - 6 plastów	0 g	Boil	10 min
Spice	Laska wanilli - 1 sztuka	0 g	Boil	10 min
Spice	Kardamon	3 g	Boil	10 min
Spice	Kora cynamonu - 1 sztuka	0 g	Boil	10 min
Spice	Kora cynamonu - 2 sztuki	0 g	Secondary	7 day(s)
Spice	Cynamon	4 g	Secondary	7 day(s)
Spice	Goździki - 4 sztuki	0 g	Secondary	7 day(s)