

X-Mas Ale

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **24**
- SRM **38.9**
- 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 **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **5.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	1.6 kg (33.2%)	82 %	4
Grain	Viking Pale Ale malt	1 kg (20.7%)	80 %	5
Grain	Biscuit Malt	0.6 kg (12.4%)	79 %	50
Grain	Viking Wheat Malt	0.4 kg (8.3%)	83 %	5
Grain	Karmelowy 600	0.4 kg (8.3%)	70 %	600
Grain	Płatki owsiane	0.2 kg (4.1%)	85 %	3
Grain	Płatki pszenne	0.3 kg (6.2%)	85 %	3
Grain	Weyermann Carafa Special III	0.2 kg (4.1%)	70 %	1100
Sugar	Milk Sugar (Lactose)	0.125 kg (2.6%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Boil	Marynka	10 g	20 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	200 ml	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Other	skórka pomarańczy	40 g	Boil	5 min
Spice	cynamon 2 rurki	4 g	Boil	5 min
Spice	gałka muszkatałowa (płaska łyżeczka)	2 g	Boil	5 min
Spice	goździki 5 szt	2 g	Boil	2 min
Other	kawa Tanzania 2x filiżanka 100ml	2 g	Secondary	2 day(s)
Spice	inne	2 g	Boil	5 min

Notes

- Piwo świąteczne
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