

Christmas Ale

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **37**
- SRM **10**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **55 C**, Time **15 min**
- Temp **68 C**, Time **45 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **45 min** at **68C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	6 kg (80%)	75 %	6
Grain	Weyermann - Dark Wheat Malt	1 kg (13.3%)	75 %	16
Grain	Caramel/Crystal Malt - 20L	0.5 kg (6.7%)	70 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	5 g	60 min	10.5 %
Boil	Falconer's Filght	5 g	60 min	11 %
Boil	Crystal	5 g	60 min	4.5 %
Boil	Cascade	5 g	60 min	6 %
Boil	Centennial	10 g	15 min	10.5 %
Boil	Falconer's Filght	10 g	15 min	11 %
Boil	Crystal	10 g	15 min	4.5 %
Boil	Cascade	10 g	15 min	6 %
Aroma (end of boil)	Centennial	35 g	2 min	10.5 %
Aroma (end of boil)	Falconer's Filght	35 g	2 min	11 %

Aroma (end of boil)	Crystal	35 g	2 min	4.5 %
Aroma (end of boil)	Cascade	35 g	2 min	6 %
Dry Hop	Centennial	40 g	7 day(s)	10.5 %
Dry Hop	Falconer's Filght	40 g	7 day(s)	11 %
Dry Hop	Crystal	40 g	7 day(s)	4.5 %
Dry Hop	Cascade	40 g	7 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	Gałka muszkatołowa	3 g	Boil	15 min
Spice	Kardamon	3 g	Boil	15 min
Spice	Ziele angielskie	1 g	Boil	15 min
Spice	Cynamon	4 g	Boil	15 min
Spice	Imbir	2 g	Boil	15 min