

# christmas ale

- Gravity **20.2 BLG**
- ABV ---
- IBU **27**
- SRM **43.6**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **28.6 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **68 C**, Time **50 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **50 min** at **68C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (38.7%)	79 %	6
Grain	Strzegom Karmel 30	0.3 kg (3.9%)	75 %	30
Grain	Pszeniczny	0.3 kg (3.9%)	85 %	4
Grain	Jęczmień palony	0.1 kg (1.3%)	55 %	985
Grain	Strzegom Karmel 600	0.25 kg (3.2%)	68 %	601
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.6%)	68 %	1200
Grain	Strzegom Monachijski typ I	3 kg (38.7%)	79 %	16
Liquid Extract	Honey	0.6 kg (7.7%)	75 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10.5 %
Boil	Lublin (Lubelski)	30 g	10 min	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale

## Extras

Type	Name	Amount	Use for	Time
Spice	cynamon	25 g	Boil	10 min
Spice	cukier wanilinowy	32 g	Boil	10 min
Spice	gałka 1 łyżeczka	5 g	Boil	10 min
Spice	goździki 5 szt	5 g	Boil	10 min
Spice	śliwki suszone	100 g	Boil	10 min
Spice	imbir świeży	30 g	Boil	10 min
Spice	miód	600 g	Boil	10 min
Spice	przyprawa do piernika 2 łyżeczk	10 g	Boil	10 min
Spice	skórka z pomarańczy 3 szt.	3 g	Boil	10 min

## Notes

- 24.07.16r 19 blg - burzliwa 21 dni - 5 blg cicha 14 dni 4,5 blg  
zabytelkowano 31.08.16 r  
dodano :  
ksylitol 240 g / 6gr na 0,5l  
glukoza 140 g / 3,5 gr na 0,5l  
łyżka stołowa gęstwy  
*Jul 24, 2016, 1:49 PM*