

# Christmas Ale II

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **34**
- SRM **23.9**
- Style **Belgian Dark Strong Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **27.1 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **39.2 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **29.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6.5 kg (63.1%)	80 %	4
Grain	Strzegom Wiedeński	1.5 kg (14.6%)	79 %	10
Grain	Special B Castle	0.7 kg (6.8%)	70 %	300
Grain	Abbey Castle	0.7 kg (6.8%)	80 %	45
Grain	Caramunich® typ I	0.4 kg (3.9%)	73 %	80
Sugar	Cukier kandyzowany ciemny	0.5 kg (4.9%)	100 %	180

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	50 g	60 min	9.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP540 - Abbey IV Ale Yeast	Ale	Liquid	40 ml	White Labs
Starter 10 Blg 2.2 l				

## Extras

Type	Name	Amount	Use for	Time
Spice	Kora cynamonu	20.7 g	Boil	10 min
Spice	Gałka muszkatolowa (1 sztuka)	4.6 g	Boil	10 min
Spice	Goździki (12 sztuk)	0.8 g	Boil	10 min
Spice	Świeży imbir	60.7 g	Boil	10 min
Flavor	Zest z słodkich pomarańczy (5 średnich)	54.4 g	Boil	10 min

Dodatkowo wycisnąłem te pomarańcze, zagotowałem sok na patelni i dodałem po schłodzeniu brzezki do temperatury, w której już nie parowała.