

# Świąteczne

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **40**
- SRM **18.2**
- 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 **3.14 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **28.2 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **68 C**, Time **20 min**
- Temp **71 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **69.8C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **20 min** at **68C**
- Keep mash **10 min** at **71C**
- Keep mash **5 min** at **76C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	1.5 kg (21.4%)	81 %	4
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Strzegom Czekoladowy 1200	0.2 kg (2.9%)	68 %	1202
Grain	Płatki owsiane	0.1 kg (1.4%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.2 kg (2.9%)	76.1 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	30 min	10 %
Boil	Zythos	15 g	20 min	9.2 %
Aroma (end of boil)	Zythos	15 g	10 min	9.2 %
Whirlpool	Izabella	30 g	30 min	6.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale BE-134	Ale	Slant	200 ml	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	suszona śliwka	100 g	Boil	30 min
Fining	mech irlandzki	5 g	Boil	15 min
Spice	cynamon	3 g	Boil	15 min
Spice	goździki	4 g	Boil	15 min
Flavor	płatki dębowe	50 g	Secondary	10 day(s)