

# Świąteczne

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **29**
- SRM **19.7**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **66 C**, Time **75 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (56.3%)	80 %	4
Grain	Strzegom Monachijski typ I	1 kg (14.1%)	79 %	16
Grain	Caramunich® typ I	0.3 kg (4.2%)	73 %	80
Grain	Special B Castle	0.4 kg (5.6%)	70 %	350
Grain	Weyermann - Carafa I	0.2 kg (2.8%)	70 %	690
Dodane na koniec zacierania, 10 min				
Grain	Płatki owsiane	1.2 kg (16.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	1500 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Spice	Cynamon	15 g	Boil	1 min
Spice	Kardamon	5 g	Boil	1 min
Other	Skórką z trzech pomarańczy	0 g	Boil	1 min
Spice	Łuska kakaowa	140 g	Boil	1 min