

# świąteczne

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- Gravity **15.4 BLG**
- ABV ---
- IBU **33**
- SRM **30.7**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2 kg (36.4%)	79 %	22
Grain	Strzegom Pilzneński	2 kg (36.4%)	80 %	4
Grain	czereśnia wędzony	0.5 kg (9.1%)	80 %	3
Grain	Pszeniczny	0.5 kg (9.1%)	85 %	4
Grain	Strzegom Karmel 150	0.2 kg (3.6%)	75 %	150
Grain	Jęczmień palony	0.2 kg (3.6%)	55 %	985
Grain	Strzegom Czekoladowy jasny	0.1 kg (1.8%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	20 g	50 min	11.2 %
Aroma (end of boil)	Magnat	20 g	10 min	11.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	jałowiec	10 g	Boil	10 min
Flavor	cynamon	10 g	Boil	10 min
Flavor	gałka muszkatołowa	10 g	Boil	10 min
Flavor	kardamonu	5 g	Boil	10 min
Flavor	goździki	5 g	Boil	10 min
Other	płatki owsiane	300 g	Mash	50 min