

# Rozgrzewka

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **19**
- SRM **18.4**
- 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 **14 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **74C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilzneński Strzegom	3.5 kg (57.9%)	79 %	4
Grain	Słód Monachijski Strzegom	1 kg (16.5%)	79 %	15
Grain	Słód Carahell Weyermann	0.35 kg (5.8%)	74 %	25
Grain	Słód Biscuit	0.25 kg (4.1%)	77 %	50
Grain	Płatki owsiane	0.25 kg (4.1%)	85 %	3
Grain	Słód karmelowy 400 Strzegom	0.25 kg (4.1%)	68 %	400
Grain	Słód karmelowy 600 Strzegom	0.1 kg (1.7%)	68 %	600
Grain	Słód barwiący Strzegom	0.05 kg (0.8%)	65 %	1400
Adjunct	Laktoza	0.3 kg (5%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	35 g	60 min	5.1 %
Boil	Ahtanum	20 g	5 min	3.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale T-58	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Przyprawa do piernika	1 g	Boil	5 min
Flavor	Skórki słodkiej pomarańczy	5 g	Boil	5 min

## Notes

- Przyprawa do piernika - mieszanka przypraw korzennych do piernika - cynamon mielony, kardamon, imbir, goździki, anyż  
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