

## 4 - DO CIASTECZEK MIKOŁAJA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **39**
- SRM **16.4**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **15.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	3 kg (59.2%)	80 %	4
Grain	Weyermann pszeniczny jasny	1 kg (19.7%)	80 %	6
Grain	Płatki owsiane	0.4 kg (7.9%)	85 %	3
Grain	Carahell	0.3 kg (5.9%)	77 %	26
Grain	Słód Caramunich Typ II Weyermann	0.2 kg (3.9%)	73 %	120
Grain	Jęczmień palony	0.12 kg (2.4%)	55 %	985
Grain	Strzegom Barwiący	0.05 kg (1%)	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Aroma (end of boil)	East Kent Goldings	30 g	10 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safbrew T-58	Ale	Dry	11.5 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Spice	Gwiazdki anyżu (sztuk)	7 g	Boil	10 min
Spice	Goździki (sztuk)	15 g	Boil	10 min
Spice	Gałka muskatołowa	6 g	Boil	10 min
Spice	Kardamon	6 g	Boil	10 min
Spice	Cynamon	6 g	Boil	10 min
Spice	Imbir	8 g	Boil	10 min
Spice	Cukier waniliowy	20 g	Boil	10 min
Spice	Cukier brązowy	500 g	Boil	10 min
Spice	Skórka z pomarańczy (sztuk)	2 g	Boil	10 min
Spice	Śliwki suszone posiekane	150 g	Boil	10 min