

## Świąteczne #2

---

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **20**
- SRM **12.7**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **15.5 liter(s)**

### Steps

- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **12.1 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (54.1%)	81 %	4
Grain	Strzegom Monachijski typ I	1 kg (27%)	79 %	16
Grain	Karmelowy Jasny 30EBC	0.25 kg (6.8%)	75 %	30
Grain	Strzegom Karmel 150	0.15 kg (4.1%)	75 %	150
Grain	Carafa	0.05 kg (1.4%)	70 %	664
Sugar	Milk Sugar (Lactose)	0.25 kg (6.8%)	100 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	9 g	60 min	12.6 %
Boil	Izabella	15 g	1 min	7.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis Safbrew BE-256	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Spice	Kardamon	1 g	Boil	15 min
Spice	Ziele angielskie	2 g	Boil	15 min
Spice	Imbir	3 g	Boil	15 min
Spice	Cynamon	3 g	Boil	15 min
Spice	Gałka	1 g	Boil	15 min
Spice	Goździki	3 g	Boil	15 min