

## święteczne przyprawiane (BIAB)

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **9**
- SRM **12.9**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **6.5 liter(s) / kg**
- Mash size **26.6 liter(s)**
- Total mash volume **30.8 liter(s)**

### Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **26.6 liter(s)** of strike water to **66.3C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **-6.1 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (73.2%)	81 %	4
Grain	Monachijski	0.6 kg (14.6%)	80 %	16
Grain	Strzegom Bursztynowy	0.4 kg (9.8%)	70 %	49
Grain	Briess - Chocolate Malt	0.1 kg (2.4%)	60 %	690

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	10 g	60 min	5.1 %
Boil	Tettnang	5 g	30 min	3.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Spice	cynamion	3 g	Boil	0 min

Spice	kolendra	3.2 g	Boil	0 min
Spice	goździki	3.2 g	Boil	0 min
Spice	ziele angielskie	3.2 g	Boil	0 min