Świąteczne

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **27**
- SRM **46.9**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg *(46.2%)*	80 %	4
Grain	Strzegom Karmel 150	3 kg *(46.2%)*	75 %	150
Grain	Strzegom Barwiący	0.5 kg *(7.7%)*	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	70 min	10 %
Aroma (end of boil)	Chinook	10 g	15 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew WB-06	Wheat	Dry	11.5 g	Safbrew

Extras

Type	Name	Amount	Use for	Time

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Spice	Kardamon	3 g	Boil	15 min
Spice	Ziele angielskie	1 g	Boil	15 min
Spice	Cynamon	4 g	Boil	15 min
Spice	Imbir	2 g	Boil	15 min
Spice	Gałka muszkatułowa	3 g	Boil	15 min