Świąteczne 2

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **32**
- SRM **20.1**
- 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 **19.6 liter(s)**
- Total mash volume **26.2 liter(s)**

Steps

- Temp **53 C**, Time **15 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg *(76.3%)*	80 %	5
Grain	Strzegom Monachijski typ I	0.35 kg *(5.3%)*	79 %	16
Grain	Karmelowy Jasny 30EBC	0.3 kg *(4.6%)*	75 %	30
Grain	Strzegom Karmel 150	0.1 kg *(1.5%)*	75 %	150
Grain	Strzegom Karmel 600	0.1 kg *(1.5%)*	68 %	601
Grain	Płatki owsiane	0.5 kg *(7.6%)*	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg *(1.5%)*	73 %	1001
50gr od początku zacierania 50gr po 60 min				
Grain	Strzegom pszenica prażona	0.1 kg *(1.5%)*	70 %	1000
przy podgrzewaniu na mashout				

Hops

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

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	12 %
Boil	Lublin (Lubelski)	20 g	60 min	3 %
Boil	Lublin (Lubelski)	30 g	10 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis US-04	Ale	Dry	22 g	---

Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	250 g	Boil	5 min
Spice	Imbir świeży	30 g	Boil	10 min
Spice	Cynamon mielony	30 g	Boil	10 min
Spice	Kardamon mielony (1 łyżeczka)	4 g	Boil	10 min
Spice	Gałka muszkatołowa (1 łyżeczka)	4 g	Boil	10 min
Spice	Anyż	5 g	Boil	10 min
Spice	Goździki 6szt.	2 g	Boil	10 min
Spice	Przyprawa do pierników	10 g	Boil	10 min
Spice	Skórka z dwóch pomarańczy	40 g	Boil	10 min
Spice	Miód gryczany	250 g	Boil	10 min
Spice	Miód wielokwiatowy	250 g	Boil	10 min