

Świąteczne

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **32**
- SRM **31.3**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **76C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (78.9%)	80 %	5
Grain	Weyermann - Carafa II	0.2 kg (5.3%)	70 %	1150
Grain	Płatki owsiane	0.2 kg (5.3%)	60 %	3
Grain	Viking Malt Karmel 150	0.4 kg (10.5%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum PL	10 g	60 min	11 %
Boil	Sybilla PL	10 g	30 min	6.9 %
Boil	Lubelski PL	10 g	10 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	---

Extras

Type	Name	Amount	Use for	Time
Spice	Goździki	10 g	Boil	10 min
Spice	Cynamon	10 g	Boil	10 min
Spice	Imbir	10 g	Boil	10 min
Spice	Kardamon	10 g	Boil	10 min
Spice	Ziele Angielskie	5 g	Boil	10 min
Spice	Gałka muszkatowa	5 g	Boil	10 min
Spice	Anyż gwizadki	3 g	Boil	10 min