

ŚWIĄTECZNE 2016

- Gravity **16.1 BLG**
- ABV ---
- IBU **33**
- SRM **31.3**
- 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 **23.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **18.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **23.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (81.7%)	79 %	6
Grain	Pilzneński	0.5 kg (8.2%)	81 %	4
Grain	Strzegom Czekoladowy jasny	0.5 kg (8.2%)	68 %	400
Grain	Jęczmień palony	0.12 kg (2%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Marynka	30 g	10 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	400 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	cukier biały	500 g	Boil	10 min
Spice	cynamon	8 g	Boil	10 min
Spice	gałka muszkatołowa	7 g	Boil	10 min

Spice	śliwki suszone	200 g	Boil	10 min
Spice	goździki (szt)	14 g	Boil	10 min
Spice	skórka świeżej pomarańczy (szt)	3 g	Boil	10 min