

# Sputnik

- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **64**
- SRM **41**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Karmel 150	0.11 kg (2.2%)	75 %	150
Grain	special W	0.055 kg (1.1%)	70 %	280
Grain	Strzegom Karmel 300	0.175 kg (3.5%)	70 %	299
Grain	Karmelowy Jasny 30EBC	0.105 kg (2.1%)	75 %	30
Grain	Jęczmień palony (dodany na ostatnie 10 minut zacierania)	0.1 kg (2%)	--- %	985
Grain	Biscuit Malt	0.2 kg (4%)	--- %	45
Grain	czekoladowy Bruntal - Soufflet	0.1 kg (2%)	--- %	900
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (4%)	73 %	1001
Grain	płatki jęczmienne	0.4 kg (8.1%)	--- %	---
Grain	Viking Pale Ale malt	3.5 kg (70.8%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	60 min	12 %
Boil	East Kent Goldings	30 g	15 min	5.1 %

Boil	Amarillo	30 g	15 min	9.5 %
------	----------	------	--------	-------

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	300 ml	Fermentum Mobile

## Notes

- Dodałem trochę gipsu piwowarskiego i chlorku wapnia do zacierania  
*Aug 15, 2019, 12:11 PM*