

## 18# RIS

- Gravity **28.5 BLG**
- ABV ---
- IBU **110**
- SRM **83**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **21.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **31.9 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.8 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **21.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.5 kg (49.4%)	79 %	6
Grain	Strzegom Pilzneński	1.5 kg (16.5%)	80 %	4
Grain	Żytni	1 kg (11%)	85 %	8
Grain	Żytni Czekoladowy Wayermann	0.75 kg (8.2%)	68 %	700
Grain	Black (Patent) Malt	0.54 kg (5.9%)	55 %	1300
Grain	Strzegom Czekoladowy ciemny	0.5 kg (5.5%)	68 %	1200
Grain	Płatki owsiane	0.32 kg (3.5%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	60 g	60 min	11.5 %
Boil	Magnat	30 g	60 min	11.2 %
Boil	Magnum	20 g	40 min	11.5 %
Boil	Magnum	10 g	30 min	11.5 %
Boil	Magnum	10 g	20 min	11.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	1000 ml	---

## Extras

Type	Name	Amount	Use for	Time
Other	Łuska Gryczna	250 g	Mash	10 min

## Notes

- 24 Luty 2017

Przed gotowaniem 15L 21 BLG  
Po gotowaniu 12L 28,5BLG

6 Marca  
Dolane 0,5L gęstwy z cienkusza przy 12 BLG

Cicha 14 Marca 11,5 BLG  
A 5,5L  
B 5,5L + 15g płatkó Whisky

Rozlew 5 Kwietnia  
200ml wody + 20g cukru dla 1.9 CO2  
*Feb 25, 2017, 1:00 AM*