

## 18# RIS

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- 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 cienkusa 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*