

## R.I.S

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- Gravity **27.3 BLG**
- ABV ---
- IBU **53**
- SRM **40**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3.8 liter(s) / kg**
- Mash size **33.8 liter(s)**
- Total mash volume **42.7 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **33.8 liter(s)** of strike water to **67.5C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **2 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	3 kg (21.6%)	79 %	22
Grain	Pilzneński	3 kg (21.6%)	81 %	4
Grain	Strzegom Karmel 600	0.7 kg (5%)	68 %	601
Grain	Strzegom Czekoladowy jasny	0.7 kg (5%)	68 %	400
Grain	Jęczmień palony	0.7 kg (5%)	55 %	985
Grain	kawowy jasny	0.8 kg (5.8%)	68 %	250
Adjunct	Oats, Flaked	0.8 kg (5.8%)	80 %	2
Adjunct	Briess - Barley Flakes	0.4 kg (2.9%)	70 %	3
Adjunct	Briess - Red Wheat Flakes	0.4 kg (2.9%)	70 %	4
Liquid Extract	ekstrakt słodowy ciemny Bruntal	3.4 kg (24.5%)	90 %	621

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	50 g	90 min	11.6 %
Boil	Marynka	20 g	90 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	1000 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Spice	lukrecja	30 g	Boil	30 min
Spice	kakaowiec	50 g	Boil	20 min
Spice	goździki	20 g	Boil	20 min
Spice	kakaowiec	50 g	Secondary	5 day(s)