

## ris

- Gravity **29.1 BLG**
- ABV **14.3 %**
- IBU **65**
- SRM **70**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **27.1 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **19.4 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **3.6 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	3 kg (38.7%)	79 %	16
Grain	Viking Pale Ale malt	1.5 kg (19.4%)	80 %	5
Grain	Płatki owsiane	0.8 kg (10.3%)	85 %	3
Grain	Abbey Castle	0.7 kg (9%)	80 %	45
Grain	Fawcett - Dark Crystal	0.5 kg (6.5%)	71 %	300
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (6.5%)	73 %	1001
Grain	żytni palony	0.5 kg (6.5%)	70 %	800
Grain	Cara-Pils/Dextrine	0.25 kg (3.2%)	72 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Columbus/Tomahawk/Zeus	30 g	60 min	15.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile