

Ris

- Gravity **23.8 BLG**
- ABV **10.9 %**
- IBU **47**
- SRM **46.3**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **50.8 liter(s)**
- Total mash volume **63.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **50.8 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **-12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	10 kg (78.7%)	80 %	7
Grain	Słód owsiany Fawcett	1 kg (7.9%)	61 %	5
Grain	Strzegom Karmel 600	0.5 kg (3.9%)	68 %	601
Grain	Carafa III	0.25 kg (2%)	70 %	1034
Grain	Jęczmień palony	0.25 kg (2%)	55 %	985
Grain	Fawcett - Pszoniczny Czekoladowy	0.2 kg (1.6%)	73 %	1001
Grain	Pszoniczny	0.5 kg (3.9%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	50 g	60 min	9 %
Boil	Ekuanot	15 g	60 min	14 %

Yeasts

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