

Ris

- Gravity **23.8 BLG**
- ABV **10.9 %**
- IBU **90**
- SRM **60**
- 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 **90 min**
- Evaporation rate **15 %/h**
- Boil size **29.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **28 liter(s)**

Steps

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

Mash step by step

- Heat up **20 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	WES ekstrakt słodowy jasny	1.7 kg (17.5%)	80 %	---
Grain	Jęczmień niesłodowany	0.5 kg (5.2%)	75 %	2
Grain	Płatki owsiane	0.5 kg (5.2%)	85 %	3
Grain	Carafa	0.5 kg (5.2%)	70 %	664
Grain	Jęczmień palony	0.5 kg (5.2%)	55 %	985
Grain	Monachijski	1 kg (10.3%)	80 %	16
Grain	Strzegom Czekoladowy ciemny	0.5 kg (5.2%)	68 %	1200
Grain	Pszeniczny	0.5 kg (5.2%)	85 %	4
Grain	Caraaroma	0.5 kg (5.2%)	78 %	400
Grain	Żytni	0.5 kg (5.2%)	85 %	8
Grain	Viking Pale Ale malt	3 kg (30.9%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	50 g	60 min	13.5 %
Boil	Nugget	25 g	60 min	13 %
Boil	Marynka	25 g	60 min	10 %

Boil	Lublin (Lubelski)	25 g	30 min	4 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale