

# RIS nr. 1

- Gravity **27.4 BLG**
- ABV **13.2 %**
- IBU **74**
- SRM **93.9**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **33 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **70 C**, Time **45 min**

## Mash step by step

- Heat up **22 liter(s)** of strike water to **77.5C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **45 min** at **70C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (41%)	80 %	16
Grain	Biscuit Malt	2 kg (16.4%)	79 %	45
Grain	Caraaroma	2 kg (16.4%)	78 %	400
Adjunct	Płatki owsiane	1.2 kg (9.8%)	85 %	3
Grain	Strzegom Czekoladowy ciemny	2 kg (16.4%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Flyer	60 g	30 min	9.8 %
Boil	Magnum	30 g	60 min	13.5 %
Boil	Magnat	30 g	60 min	11.2 %
Aroma (end of boil)	Perle	30 g	30 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	Safale