

# RRIS

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- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **48**
- SRM **38.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.9 liter(s)**
- Total mash volume **37.2 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **27.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5.8 kg (62.4%)	82 %	4
Grain	Viking Wheat Malt	1 kg (10.8%)	83 %	5
Grain	Żytni	1 kg (10.8%)	85 %	8
Grain	żyto prażone	0.3 kg (3.2%)	10 %	1100
Grain	Strzegom Karmel 600	0.5 kg (5.4%)	68 %	600
Grain	Płatki owsiane	0.5 kg (5.4%)	85 %	3
Grain	Carafa III	0.2 kg (2.2%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga polish hops	50 g	60 min	12.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Liquid	800 ml	safale