

# RIS

- Gravity **21.1 BLG**
- ABV **9.4 %**
- IBU **63**
- SRM **61.2**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.7 liter(s)**

## Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.1 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **66 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **15 min** at **66C**
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **2.8 liter(s)** of **76C** water or to achieve **15.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.4 kg (57.9%)	80 %	7
Grain	Monachijski	1.7 kg (22.4%)	80 %	16
Grain	Melanoiden Malt	0.3 kg (3.9%)	80 %	39
Grain	Strzegom Karmel 600	0.2 kg (2.6%)	68 %	601
Grain	Strzegom Czekoladowy jasny	0.4 kg (5.3%)	68 %	400
Grain	Strzegom Czekoladowy ciemny	0.35 kg (4.6%)	68 %	1200
Grain	Jęczmień palony	0.25 kg (3.3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	50 g	60 min	7 %
Boil	First Gold	20 g	60 min	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M42 New World Strong Ale	Ale	Dry	20 g	Mangrove Jack's
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