

# RIS

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **103**
- SRM **67.5**
- 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 **120 min**
- Evaporation rate **10 %/h**
- Boil size **30 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.2 liter(s)**
- Total mash volume **41.6 liter(s)**

## Steps

- Temp **66 C**, Time **90 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **31.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **30 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7.2 kg (66.1%)	80 %	5
Grain	Strzegom Monachijski typ II	0.8 kg (7.3%)	79 %	22
Grain	Strzegom Karmel 300	0.3 kg (2.8%)	70 %	299
Grain	Jęczmień palony	0.3 kg (2.8%)	55 %	985
Grain	Płatki owsiane	0.5 kg (4.6%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.5 kg (4.6%)	73 %	1001
Grain	Strzegom Czekoladowy 1200	0.5 kg (4.6%)	68 %	1202
Grain	Carafa II	0.3 kg (2.8%)	70 %	812
Sugar	Candi Sugar, Dark	0.5 kg (4.6%)	78.3 %	542

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomahawk	70 g	120 min	16.1 %
Boil	Tomahawk	30 g	20 min	16.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	400 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	cukier	0.5 g	Boil	20 min