

# RIS

- Gravity **25.1 BLG**
- ABV **11.7 %**
- IBU **88**
- SRM **46.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (47.1%)	80 %	5
Grain	Strzegom Monachijski typ I	1.2 kg (14.1%)	79 %	16
Grain	Fawcett - Dark Crystal	0.6 kg (7.1%)	71 %	300
Grain	Caramel Aromatic	0.2 kg (2.4%)	75 %	200
Grain	Płatki owsiane	0.5 kg (5.9%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.4 kg (4.7%)	73 %	1001
Grain	Jęczmień palony	0.2 kg (2.4%)	55 %	985
Grain	Weyermann - Carafa I	0.2 kg (2.4%)	70 %	690
Liquid Extract	WES ekstrakt słodowy jasny	1.2 kg (14.1%)	80 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	60 g	60 min	15.5 %
Boil	Centennial	20 g	20 min	10.5 %
Aroma (end of boil)	First Gold	25 g	10 min	7.5 %

Aroma (end of boil)	Bramling Cross	25 g	10 min	6 %
---------------------	----------------	------	--------	-----