

# RIS

- Gravity **25.5 BLG**
- ABV **12 %**
- IBU **66**
- SRM **69.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **23.5 liter(s)**

## Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **38.8 liter(s)**
- Total mash volume **51.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **38.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **-2.4 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (38.6%)	80 %	5
Grain	Pszeniczny	2 kg (15.4%)	85 %	4
Grain	Monachijski	2 kg (15.4%)	80 %	16
Grain	Płatki owsiane	1.2 kg (9.3%)	85 %	3
Grain	Pszeniczny Czekoladowy	0.75 kg (5.8%)	73 %	1001
Grain	Weyermann - Carafa special I	0.75 kg (5.8%)	70 %	900
Grain	Strzegom Czekoladowy jasny	0.25 kg (1.9%)	68 %	400
Grain	Fawcett - Crystal	1 kg (7.7%)	70 %	160

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	60 g	60 min	14.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

WLP001 - California Ale Yeast	Ale	Slant	300 ml	White Labs
-------------------------------	-----	-------	--------	------------

### Extras

Type	Name	Amount	Use for	Time
Flavor	płatki dębowe	50 g	Secondary	14 day(s)
Water Agent	węglan wapnia	20 g	Mash	---