

# saj

- Gravity **25.1 BLG**
- ABV **11.7 %**
- IBU **69**
- SRM **45.8**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **77.5C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (62.5%)	80 %	5
Grain	Monachijski	1 kg (12.5%)	80 %	16
Grain	Strzegom Pszeniczny	1 kg (12.5%)	81 %	6
Grain	Strzegom Karmel 300	0.3 kg (3.8%)	70 %	299
Grain	Château Caffé	0.2 kg (2.5%)	70 %	500
Grain	Jęczmień palony	0.2 kg (2.5%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.5%)	68 %	1200
Grain	Strzegom Barwiący	0.1 kg (1.3%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Nugget	30 g	10 min	15.3 %
Boil	Styrian Wolf	20 g	60 min	13.8 %
Boil	Magnat	30 g	60 min	11.2 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
04	Ale	Dry	10 g	ds