

## ris

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- Gravity **29 BLG**
- ABV ---
- IBU **34**
- SRM **40**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **50 min**
- Evaporation rate **15 %/h**
- Boil size **22.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

### Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **32.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **0.9 liter(s)** of **76C** water or to achieve **22.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5.5 kg (51.4%)	79 %	6
Grain	Jęczmień palony	0.5 kg (4.7%)	55 %	985
Grain	Strzegom Karmel 300	0.7 kg (6.5%)	70 %	299
Grain	Pszeniczny	1 kg (9.3%)	70 %	4
Grain	Strzegom Barwiący	0.5 kg (4.7%)	65 %	1300
Grain	Weyermann - Smoked Malt	2 kg (18.7%)	70 %	6
Grain	strzegom prażona pszenica	0.5 kg (4.7%)	70 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Perle	70 g	15 min	7 %
Boil	Tradition	50 g	60 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	11 g	Safale
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