

Ris podwędzony

- Gravity **27.7 BLG**
- ABV **13.3 %**
- IBU **104**
- SRM **65.8**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

- Temp **64 C**, Time **90 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszoniczny wędzony dębem	1 kg (8.8%)	80 %	3
Grain	Viking Malt Wędzony Czereśnią	1 kg (8.8%)	82 %	10
Grain	Strzegom Czekoladowy jasny	1 kg (8.8%)	68 %	400
Grain	Viking Pale Ale malt	3 kg (26.3%)	80 %	5
Grain	Caraaroma	1 kg (8.8%)	78 %	400
Grain	Weyermann - Carafa III	1 kg (8.8%)	70 %	1024
Liquid Extract	WES ekstrakt słodowy jasny	3.4 kg (29.8%)	80 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	100 g	60 min	15.5 %
Aroma (end of boil)	Izabella	100 g	15 min	5.1 %
Aroma (end of boil)	Izabella	100 g	5 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	23 g	Fermentis
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