

## RIS v5 #43

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- Gravity **24 BLG**
- ABV **11 %**
- IBU **98**
- SRM **52.2**
- 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 **165 min**
- Evaporation rate **10 %/h**
- Boil size **24.7 liter(s)**

### Mash information

- Mash efficiency **77.4 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.7 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **7 min**

### Mash step by step

- Heat up **20.5 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **24.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz - Pale Ale Malt	4.5 kg (54.9%)	80.5 %	6
Grain	Bestmalz - Munich Malt I	2.8 kg (34.1%)	80 %	16
Grain	Fawcett - Pszeniczny Czekoladowy	0.4 kg (4.9%)	72.7 %	1000
Grain	Weyermann - Dehusked Carafa III	0.3 kg (3.7%)	65 %	1400
Grain	Viking - czekoladowy jęczmienny	0.2 kg (2.4%)	68 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	50 g	60 min	14.7 %
Boil	Warrior	40 g	30 min	14.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	200 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	węglan wapnia/kreda	9 g	Mash	---
Water Agent	kwas mlekowy [ml]	3.89 g	Mash	---
Water Agent	gips	4 g	Mash	---
Water Agent	sól epsom	3 g	Mash	---
Other	fosforan diamonu	3 g	Boil	10 min
Fining	mech irlandzki	3 g	Boil	10 min
Flavor	płatki dębowe sherry oloroso	50 g	Secondary	30 day(s)
Flavor	płatki dębowe koniak	50 g	Secondary	30 day(s)

### Notes

- Carafa III special w 72C (wcześniej cold brew ok. 20 min)  
*Apr 13, 2017, 1:35 PM*