

RISIEK

- Gravity **27 BLG**
- ABV **12.9 %**
- IBU **76**
- SRM **49.8**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **120 min**
- Evaporation rate **11 %/h**
- Boil size **28.1 liter(s)**

Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.2 liter(s)**
- Total mash volume **49.6 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **37.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **3.3 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep@ale (Malteurop)	8 kg (64.5%)	81 %	8
Grain	MEP@Lager	3 kg (24.2%)	82 %	6
Grain	Fawcett - Pale Chocolate	0.3 kg (2.4%)	71 %	600
Grain	Strzegom Czekoladowy ciemny	0.3 kg (2.4%)	68 %	1200
Grain	Strzegom Karmel 300	0.3 kg (2.4%)	70 %	299
Grain	Jęczmień palony	0.5 kg (4%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	14.5 %
Boil	Citra	30 g	30 min	12 %
Boil	Amarillo	30 g	15 min	8.2 %
Boil	Cascade	30 g	15 min	6.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	250 ml	Fermentum Mobile