

NAJLEPSZY RISEŁ

- Gravity **23.6 BLG**
- ABV ---
- IBU **87**
- SRM **59.9**
- 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 **20.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **27.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **20.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.063 kg (59.2%)	82 %	4
Grain	Czekoladowy	0.514 kg (7.5%)	60 %	788
Grain	Weyermann - Smoked Malt	0.429 kg (6.3%)	81 %	6
Grain	Aroma CastleMalting	0.309 kg (4.5%)	78 %	100
Grain	Cara Gold Castlemalting	0.343 kg (5%)	78 %	120
Grain	Płatki owsiane	0.6 kg (8.7%)	85 %	3
Grain	Jęczmień palony	0.6 kg (8.7%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	38 g	60 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	40 g	10 min	15.5 %
Aroma (end of boil)	Simcoe	40 g	1 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM13 Irlandzkie Ciemności	Ale	Slant	150 ml	Fermentum Mobile
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Extras

Type	Name	Amount	Use for	Time
Flavor	Kawa	45 g	Secondary	2 day(s)
Flavor	dark brown sugar	466.5 g	Boil	15 min