

# Ris-oto Jest!

- Gravity **28.9 BLG**
- ABV **14.1 %**
- IBU **96**
- SRM **64**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **20.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.9 liter(s)**
- Total mash volume **37.2 liter(s)**

## Steps

- Temp **65 C**, Time **120 min**
- Temp **76 C**, Time **2 min**

## Mash step by step

- Heat up **27.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **120 min** at **65C**
- Keep mash **2 min** at **76C**
- Sparge using **2.2 liter(s)** of **76C** water or to achieve **20.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsneński 6-rzędowy	5 kg (53.8%)	80 %	5
Grain	Płatki owsiane	2 kg (21.5%)	85 %	3
Grain	Strzegom Karmel 300	0.3 kg (3.2%)	70 %	299
Grain	Weyermann - Caraamber	0.3 kg (3.2%)	75 %	65
Grain	Weyermann - Carawheat	0.3 kg (3.2%)	77 %	97
Grain	Fawcett - Pale Chocolate	0.7 kg (7.5%)	71 %	600
Grain	Carafa III	0.7 kg (7.5%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	75 g	120 min	15.5 %

## Yeasts

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