

# 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 |