

# ryzowe

- Gravity **13.6 BLG**
- ABV ---
- IBU **32**
- SRM **6.4**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **68 C**, Time **30 min**

## Mash step by step

- Heat up **7.5 liter(s)** of strike water to **60.9C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **68C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield  | EBC |
|-------|----------------------------|-----------------|--------|-----|
| Grain | Rye, Flaked                | 0.25 kg (10%)   | 78.3 % | 4   |
| Grain | Strzegom Pilzneński        | 1.65 kg (65.7%) | 80 %   | 4   |
| Grain | Strzegom Monachijski typ I | 0.61 kg (24.3%) | 79 %   | 16  |

## Hops

| Use for             | Name    | Amount | Time     | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil                | WAI-ITI | 10 g   | 30 min   | 2.8 %      |
| Boil                | Cascade | 12 g   | 30 min   | 7.7 %      |
| Mash                | Chinook | 10 g   | 30 min   | 13 %       |
| Aroma (end of boil) | WAI-ITI | 10 g   | 5 min    | 2.8 %      |
| Aroma (end of boil) | Cascade | 10 g   | 5 min    | 7.7 %      |
| Aroma (end of boil) | Chinook | 10 g   | 5 min    | 13 %       |
| Dry Hop             | WAI-ITI | 15 g   | 4 day(s) | 2.8 %      |
| Dry Hop             | Cascade | 15 g   | 4 day(s) | 7.7 %      |
| Dry Hop             | Chinook | 15 g   | 4 day(s) | 13 %       |

## Yeasts

| <b>Name</b>     | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|-----------------|-------------|-------------|---------------|-------------------|
| Fermentis US-05 | Ale         | Dry         | 5 g           | ---               |

### **Extras**

| <b>Type</b> | <b>Name</b>     | <b>Amount</b> | <b>Use for</b> | <b>Time</b> |
|-------------|-----------------|---------------|----------------|-------------|
| Flavor      | trawa cytrynowa | 10 g          | Boil           | 5 min       |