

## Little ZŁY v.2

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- Gravity **7.3 BLG**
- ABV ---
- IBU **33**
- SRM **7.3**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

### Steps

- Temp **72 C**, Time **65 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **10.8 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **65 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **30.8 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilzneński               | 2.1 kg (58.3%) | 81 %  | 4   |
| Grain | Żytni                    | 1.2 kg (33.3%) | 85 %  | 8   |
| Grain | Karmelowy żytni Strzegom | 0.3 kg (8.3%)  | 75 %  | 150 |

### Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Mash    | Citra      | 15 g   | 60 min   | 13.5 %     |
| Boil    | Citra      | 20 g   | 15 min   | 13.5 %     |
| Boil    | Centennial | 8 g    | 60 min   | 10.5 %     |
| Boil    | Cascade    | 20 g   | 10 min   | 7.7 %      |
| Boil    | Citra      | 25 g   | 5 min    | 13.5 %     |
| Dry Hop | Citra      | 45 g   | 5 day(s) | 13.5 %     |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Fermentis  |

### Extras

| Type        | Name           | Amount | Use for | Time   |
|-------------|----------------|--------|---------|--------|
| Water Agent | Chlorek Wapnia | 7 g    | Boil    | 60 min |