

# Little ZŁY

- Gravity **7.3 BLG**
- ABV ---
- IBU **31**
- SRM **6.7**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

## Steps

- Temp **68 C**, Time **35 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **8.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **35 min** at **68C**
- Keep mash **45 min** at **72C**
- Sparge using **24.6 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pilzneński               | 1.7 kg (58.6%) | 81 %  | 4   |
| Grain | Żytni                    | 1 kg (34.5%)   | 85 %  | 8   |
| Grain | Karmelowy żytni Strzegom | 0.2 kg (6.9%)  | 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    | 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 | 5 g | Boil | 60 min |
|-------------|----------------|-----|------|--------|