

## 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