

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
-------------	----------------	-----	------	--------