

Żytwięczmień (Rye IPA)

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **56**
- SRM **5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	4 kg (57.1%)	85 %	8
Grain	Płatki owsiane	1 kg (14.3%)	85 %	3
Grain	Pilzneński	2 kg (28.6%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	40 min	15.5 %
Boil	Zula	40 g	40 min	7.5 %
Boil	Zula	30 g	10 min	7.5 %
Boil	Oktawia	31 g	10 min	7.1 %
Dry Hop	Zula	30 g	2 day(s)	7.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis