Żytnie IPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **46**
- SRM **7.8**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.4 kg *(34.3%)*	81 %	4
Grain	Viking Pale Ale malt	2.4 kg *(34.3%)*	80 %	5
Grain	Żytni	1.1 kg *(15.7%)*	85 %	8
Grain	Strzegom Wiedeński	0.8 kg *(11.4%)*	79 %	10
Grain	Strzegom Karmel 150	0.3 kg *(4.3%)*	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Centennial	5 g	30 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	5 g	30 min	15.5 %
Boil	Chinook	5 g	30 min	13 %
Boil	Centennial	5 g	10 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	5 g	10 min	15.5 %
Boil	Chinook	5 g	10 min	13 %
Aroma (end of boil)	Centennial	5 g	0 min	10.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	5 g	0 min	15.5 %

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Aroma (end of boil)	Chinook	5 g	0 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	22 g	Fermentis