

Żytnie IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **51**
- SRM **8.2**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **35 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **28 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński Viking Malt	2.4 kg (34.3%)	83 %	4
Grain	Pale Ale Viking Malt	2.4 kg (34.3%)	82 %	6
Grain	Żytni Viking Malt	1.1 kg (15.7%)	80 %	10
Grain	Wiedeński Viking Malt	0.8 kg (11.4%)	81 %	8
Grain	Karmelowy 150 Viking Malt	0.3 kg (4.3%)	80 %	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	10.5 %
Boil	Centennial	5 g	10 min	10 %
Boil	Columbus/Tomahawk/Zeus	5 g	10 min	15.5 %
Boil	Chinook	5 g	10 min	10 %
Aroma (end of boil)	Centennial	5 g	10 min	10 %

Aroma (end of boil)	Columbus/Tomahawk/Zeus	5 g	10 min	15.5 %
Aroma (end of boil)	Chinook	5 g	10 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis