

Żytnie

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **53**
- SRM **6.8**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **50 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **15 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **80C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.6 kg (60.5%)	80 %	5
Grain	Rye Malt	1 kg (23.3%)	63 %	10
Grain	Strzegom Karmel 30	0.2 kg (4.7%)	75 %	30
Grain	Strzegom Wiedeński	0.5 kg (11.6%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Whirlpool	Mosaic	30 g	30 min	10 %
Dry Hop	Citra	50 g	3 day(s)	12 %
Dry Hop	Mosaic	50 g	3 day(s)	10 %

Yeasts

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