

elo

- Gravity **15.7 BLG**
- ABV ---
- IBU **72**
- SRM **8.1**
- 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 **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (30.8%)	80 %	5
Grain	Żytni	1 kg (15.4%)	85 %	8
Grain	Pilzneński	2 kg (30.8%)	81 %	4
Grain	Strzegom Wiedeński	1 kg (15.4%)	79 %	10
Grain	Strzegom Karmel 30	0.5 kg (7.7%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	30 min	15.5 %
Boil	Simcoe	15 g	15 min	13.2 %
Boil	Simcoe	15 g	5 min	13.2 %
Dry Hop	Simcoe	20 g	10 day(s)	13.2 %
Dry Hop	Cascade	25 g	10 day(s)	6 %