

Rye ale

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **26**
- 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 **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **22.1 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	3 kg (47.6%)	85 %	8
Grain	pilżeński	2 kg (31.7%)	85 %	5
Grain	Viking Pale Ale malt	1 kg (15.9%)	85 %	5
Grain	Strzegom Karmel 150	0.3 kg (4.8%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	30 g	60 min	7 %
Boil	perle	20 g	20 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
hybrid	Ale	Dry	10 g	gozdawa