

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 | piłżeński | 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 |