

Żytniak

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **27**
- SRM **4.3**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **39.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **73 C**, Time **10 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **73C**
- Sparge using **25.6 liter(s)** of **76C** water or to achieve **39.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Żytni | 2 kg (28.6%) | 85 % | 8 |
| Grain | Strzegom Pale Ale | 4 kg (57.1%) | 79 % | 6 |
| Grain | Cara-Pils/Dextrine | 0.5 kg (7.1%) | 72 % | 4 |
| Grain | Płatki owsiane | 0.5 kg (7.1%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | Citra | 20 g | 50 min | 12 % |
| Boil | Citra | 15 g | 30 min | 12 % |
| Boil | Citra | 15 g | 0 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 9 g | Fermentis |