

# 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  |