

# Żytnie

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **12.8**
- Style **Specialty Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **47 C**, Time **40 min**
- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **17.9 liter(s)** of strike water to **50.8C**
- Add grains
- Keep mash **40 min** at **47C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Żytni                       | 2 kg (39.2%)   | 85 %  | 8   |
| Grain | Strzegom Pilzneński         | 1.6 kg (31.4%) | 80 %  | 4   |
| Grain | Strzegom Monachijski typ II | 0.8 kg (15.7%) | 79 %  | 22  |
| Grain | Strzegom Karmel 300         | 0.2 kg (3.9%)  | 70 %  | 299 |
| Grain | Strzegom Karmel 600         | 0.1 kg (2%)    | 68 %  | 601 |
| Grain | Pszeniczny                  | 0.4 kg (7.8%)  | 85 %  | 4   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | Perle | 20 g   | 70 min | 5 %        |
| Boil    | Perle | 20 g   | 30 min | 5 %        |
| Boil    | Perle | 5 g    | 10 min | 5 %        |

## Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| <b>Name</b>         | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|---------------------|-------------|-------------|---------------|-------------------|
| Fermentis Safbrew w | Ale         | Dry         | 11.5 g        | Safale            |