

# Żytnia IPA

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **62**
- SRM **6.9**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **62 min**
- Evaporation rate **10 %/h**
- Boil size **31.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **31.6 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **23.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **31.8 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Słód Pilzneński      | 2.4 kg (30.4%) | 81 %  | 4   |
| Grain | Viking Pale Ale malt | 3.4 kg (43%)   | 80 %  | 5   |
| Grain | Żytni                | 1.1 kg (13.9%) | 85 %  | 8   |
| Grain | Strzegom Wiedeński   | 0.8 kg (10.1%) | 79 %  | 10  |
| Grain | Strzegom Karmel 150  | 0.2 kg (2.5%)  | 75 %  | 150 |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Columbus   | 9 g    | 62 min | 15.8 %     |
| Boil                | Tomahawk   | 20 g   | 62 min | 13.9 %     |
| Boil                | Centennial | 10 g   | 30 min | 8 %        |
| Boil                | Equinox    | 10 g   | 30 min | 14.5 %     |
| Boil                | Chinook    | 10 g   | 30 min | 9.1 %      |
| Boil                | Centennial | 10 g   | 10 min | 8 %        |
| Boil                | Equinox    | 10 g   | 10 min | 14.5 %     |
| Boil                | Chinook    | 10 g   | 10 min | 9.1 %      |
| Aroma (end of boil) | Centennial | 10 g   | 2 min  | 8 %        |

|                     |         |      |       |        |
|---------------------|---------|------|-------|--------|
| Aroma (end of boil) | Equinox | 10 g | 2 min | 14.5 % |
| Aroma (end of boil) | Chinook | 10 g | 2 min | 9.1 %  |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | fermentis  |