# Żyto IPA

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **46**
- SRM **8.4**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **18.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Strzegom Pale Ale | 3 kg *(48.4%)* | 79 % | 6 |
| Grain | Żytni | 2 kg *(32.3%)* | 85 % | 8 |
| Grain | Weyermann - Carapils | 0.3 kg *(4.8%)* | 78 % | 4 |
| Grain | Strzegom Karmel 30 | 0.3 kg *(4.8%)* | 75 % | 30 |
| Grain | Caraaroma | 0.1 kg *(1.6%)* | 78 % | 400 |
| Grain | płatki żytnie | 0.5 kg *(8.1%)* | 85 % | 3 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Columbus/Tomahawk/Zeus | 15 g | 60 min | 13.6 % |
| Boil | Equinox | 40 g | 5 min | 13.1 % |
| Boil | Chinook | 15 g | 5 min | 13 % |
| Boil | El Dorado | 15 g | 5 min | 13 % |
| Whirlpool | Chinook | 25 g | 10 min | 13 % |
| Whirlpool | El Dorado | 25 g | 10 min | 13 % |
| Dry Hop | Chinook | 20 g | 5 day(s) | 13 % |
| Dry Hop | El Dorado | 20 g | 5 day(s) | 15 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| Safale S-04 | Ale | Slant | 700 ml | --- |

### Extras

| Type | Name | Amount | Use for | Time |
|---|---|---|---|---|
| Water Agent | mech irlandzki | 5 g | Boil | 15 min |