

## #51 Żytnie IPA

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **54**
- SRM **6.7**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **2 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **9.43 %/h**
- Boil size **31 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **30.4 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **15 min**
- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **23.6 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **31 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt  | 2 kg (29.6%)   | 82 %  | 4   |
| Grain | Viking Pale Ale malt | 3 kg (44.4%)   | 80 %  | 5   |
| Grain | Viking Żytni         | 1 kg (14.8%)   | 85 %  | 5   |
| Grain | Strzegom Wiedeński   | 0.5 kg (7.4%)  | 79 %  | 10  |
| Grain | Strzegom Karmel 150  | 0.25 kg (3.7%) | 75 %  | 150 |

### Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 25 g   | 60 min   | 15.5 %     |
| Boil                | Centennial             | 15 g   | 30 min   | 10.5 %     |
| Boil                | Chinook                | 15 g   | 30 min   | 13 %       |
| Aroma (end of boil) | Centennial             | 15 g   | 0 min    | 10.5 %     |
| Aroma (end of boil) | Chinook                | 15 g   | 0 min    | 13 %       |
| Dry Hop             | Centennial             | 20 g   | 3 day(s) | 10.5 %     |

|         |         |      |          |      |
|---------|---------|------|----------|------|
| Dry Hop | Chinook | 20 g | 3 day(s) | 13 % |
|---------|---------|------|----------|------|

## Yeasts

| Name                        | Type | Form  | Amount | Laboratory       |
|-----------------------------|------|-------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale  | Slant | 200 ml | Fermentum Mobile |