

Żytnie IPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **46**
- SRM **7.8**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

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

Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Pilznieński | 2.4 kg (34.3%) | 81 % | 4 |
| Grain | Viking Pale Ale malt | 2.4 kg (34.3%) | 80 % | 5 |
| Grain | Żytni | 1.1 kg (15.7%) | 85 % | 8 |
| Grain | Strzegom Wiedeński | 0.8 kg (11.4%) | 79 % | 10 |
| Grain | Strzegom Karmel 150 | 0.3 kg (4.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 60 min | 15.5 % |
| Boil | Centennial | 5 g | 30 min | 10.5 % |
| Boil | Columbus/Tomahawk/Zeus | 5 g | 30 min | 15.5 % |
| Boil | Chinook | 5 g | 30 min | 13 % |
| Boil | Centennial | 5 g | 10 min | 10.5 % |
| Boil | Columbus/Tomahawk/Zeus | 5 g | 10 min | 15.5 % |
| Boil | Chinook | 5 g | 10 min | 13 % |
| Aroma (end of boil) | Centennial | 5 g | 0 min | 10.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 5 g | 0 min | 15.5 % |

| | | | | |
|---------------------|---------|-----|-------|------|
| Aroma (end of boil) | Chinook | 5 g | 0 min | 13 % |
|---------------------|---------|-----|-------|------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 22 g | Fermentis |