

Żytnia Ipa - książęcy

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **29**
- SRM **8.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **27.2 liter(s)**
- Total mash volume **34 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **27.2 liter(s)** of strike water to **53.8C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (66.2%) | 80 % | 5 |
| Grain | Monachijski | 1 kg (14.7%) | 80 % | 16 |
| Grain | Rye, Flaked | 1 kg (14.7%) | 78.3 % | 4 |
| Grain | Strzegom Karmel 150 | 0.3 kg (4.4%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | książęcy | 40 g | 30 min | 7 % |
| Aroma (end of boil) | książęcy | 20 g | 5 min | 7 % |
| Whirlpool | książęcy | 80 g | 5 min | 7 % |
| Dry Hop | książęcy | 150 g | 2 day(s) | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|-------|--------|------------------|
| FM11 Wichrowe Wzgórza | Ale | Slant | 150 ml | Fermentum Mobile |

Extras

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

| Type | Name | Amount | Use for | Time |
|-------------|--------------|--------|---------|--------|
| Other | Łuska ryżowa | 150 g | Mash | 60 min |
| Water Agent | NaCl | 4 g | Mash | 60 min |
| Water Agent | H3PO4 | 5 g | Mash | 60 min |
| Fining | Whirfloc | 5 g | Boil | 10 min |