

# 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