

# Książęcy

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **66**
- SRM **5.2**
- 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 **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **21.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **20 min** at **72C**
- Sparge using **11.3 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	5 kg (82.6%)	80 %	5
Grain	Płatki owsiane	0.8 kg (13.2%)	85 %	3
Grain	Biscuit Malt	0.25 kg (4.1%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8.7 %
Boil	książęcy	58 g	60 min	9 %
Dry Hop	książęcy	100 g	2 day(s)	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	120 ml	---

## Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1 g	Boil	5 min