

## Single Hop Kveik APA - Książęcy.

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **27**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

### Steps

- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **19.2 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (46.9%)	80 %	4
Grain	Briess - Rye Malt	1 kg (15.6%)	80 %	7
Grain	Oats, Flaked	1.2 kg (18.7%)	80 %	2
Grain	Rye, Flaked	0.4 kg (6.3%)	78.3 %	4
Grain	Spelt, Flaked	0.8 kg (12.5%)	77 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Książęcy	100 g	20 min	10 %
Dry Hop	Książęcy	200 g	4 day(s)	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Hornindal Kveik	Ale	Slant	40 ml	Norwegian Farmhouse

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Pozywka dla drozdzy	3 g	Boil	2 min

Water Agent	Sól epsom	3 g	Boil	20 min
Water Agent	Kwas mlekowy do wysładzania	4 g	Mash	60 min