

# kvaki

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **72**
- SRM **5.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 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 **24 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	2.5 kg (31.3%)	81 %	5
Grain	Weyermann pszeniczny jasny	2 kg (25%)	80 %	6
Grain	Weyermann - Pale Ale Malt	1 kg (12.5%)	85 %	7
Grain	Słód owsiany Fawcett	1 kg (12.5%)	61 %	5
Grain	Weyermann - Carapils	0.5 kg (6.3%)	78 %	4
Grain	Płatki pszeniczne	0.5 kg (6.3%)	60 %	3
Grain	Płatki owsiane	0.5 kg (6.3%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	5 g	40 min	12.4 %
Boil	Citra	5 g	20 min	13.5 %
Boil	HBC 630	5 g	20 min	14.2 %
Boil	Nelson Sauvign	5 g	20 min	12.3 %

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Boil	HBC 630	5 g	5 min	14.2 %
Boil	Nelson Sauvin	5 g	5 min	12.3 %
Aroma (end of boil)	Citra	20 g	10 min	13.5 %
Aroma (end of boil)	HBC 630	20 g	10 min	14.2 %
Aroma (end of boil)	Nelson Sauvin	20 g	10 min	12.3 %
Whirlpool	Citra	30 g	20 min	13.5 %
Whirlpool	HBC 630	30 g	20 min	14.2 %
Whirlpool	Nelson Sauvin	30 g	20 min	12.3 %
Dry Hop	Citra	40 g	3 day(s)	13.5 %
Dry Hop	HBC 630	40 g	3 day(s)	14.2 %
Dry Hop	Nelson Sauvin	30 g	3 day(s)	12.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew Voss Kveik	Ale	Dry	11.5 g	Lallemand