

# kwaz

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **15**
- SRM **3.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **10.8 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **8.4 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	1.8 kg (75%)	80.5 %	4
Grain	Pszeniczny	0.4 kg (16.7%)	85 %	4
Grain	Oats, Flaked	0.2 kg (8.3%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Mosaic	25 g	5 min	12.8 %
Whirlpool	Sabro	25 g	5 min	15.8 %
Dry Hop	Motueka	50 g	5 day(s)	6 %
Dry Hop	Sabro	25 g	5 day(s)	15.8 %
Dry Hop	Mosaic	25 g	5 day(s)	12.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
lactobacillus	Ale	Dry	5 g	---
US-05	Ale	Slant	150 ml	---