

# Warka zerowa

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **42**
- SRM **4.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **105.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **75 liter(s)**
- Total mash volume **100 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **75 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **55.8 liter(s)** of **76C** water or to achieve **105.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	25 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	100 g	90 min	10.5 %
Boil	lunga	50 g	60 min	10.5 %
Aroma (end of boil)	Citra	50 g	0 min	14.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	2000 ml	Fermentum Mobile