

# Warka 15

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- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **21**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **55 liter(s)**
- Trub loss **5 %**
- Size with trub loss **60.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **69.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **54.4 liter(s)**
- Total mash volume **71.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **54.4 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **32.2 liter(s)** of **76C** water or to achieve **69.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8.5 kg (46.7%)	80 %	5
Grain	Viking Pilsner malt	8.5 kg (46.7%)	82 %	4
Adjunct	Platki owsiane	1.2 kg (6.6%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Centennial	50 g	20 min	10.5 %
Whirlpool	Centennial	100 g	20 min	10.5 %
Dry Hop	Nelson Sauvign	300 g	4 day(s)	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Liquid	200 ml	White Labs